THE

PALESTINE EXPLORATION FUND

LAST YEAR AND THIS.

When, in the autumn of the year 1883, the Committee resolved upon sending out a Geological Expedition, a list was opened for donations to be directed specially to this purpose. It was found, however, that very few donors and subscribers desired that their money should be set aside for a special purpose, and the general funds of the Society were, as had always been done in the Survey, employed for this work. The general instructions for the Expedition were drawn up for the Committee, after consultation with Professor Hull, by Sir Charles Wilson. Professor Hull, as has already been told in the *Quarterly Statement*, carried the Expedition to a successful termination. His scientific results are as yet only partly published; in his forthcoming book (ready January 1st, 1885), called "Mount Seir," he will give such of them as are capable of being presented in a popular form. They will be fully and completely set forth in the scientific memoirs which he is preparing for the Committee. The results of the Expedition are, it may be stated, extremely satisfactory from the geological point of view. Not less satisfactory are they from the geographical point of view. Major Kitchener, who accompanied the party, was able, with the assistance of Mr. George Armstrong, to execute for the first time a reconnaissance survey of the Wâdy Arabah, which has since been laid down upon sheets by Mr. Armstrong, and is now ready for publication. At the same time Mr. J. Chichester Hart, who accompanied the party as a volunteer, has been doing good work in the natural history of this little known region. We have been so fortunate as to secure the publication of Mr. Hart's observations and discoveries in the *Quarterly Statement*. The first instalment will appear in April.

Other important geographical work has been done for Palestine during the last year—(1) in the publication by Colonel Sir Charles Wilson of the late Mr. F. W. Holland's notes of his last journey; (2) of Sir Charles Wilson's paper on Recent Biblical Research in Asia Minor and Syria; (3) of Mr. Laurence Oliphant's paper on the Khurbets of Carmel; (4) of Mr. Oliphant's Notes on the Jaulân; and (5) of various papers by Captain Conder.

The topographical work of the year, which forms so large and important a feature of the *Quarterly Statement*, includes papers by Captain Conder, Mr. H. G. Tomkins, Mr. W. F. Birch, Mr. S. Flecker, Mr. Mearns, Herr Conrad Schick, Dr. Clay Trumbull, Mr. Kennion, and Mr. Baker Greene. The archæological work of the year includes four very remarkable papers by M. C. Clermont-Ganneau.

We are thus able to look back upon the past year with considerable satisfaction. Though the Firman for continuing the Eastern Survey is still denied us, we have been able unexpectedly to secure the survey of a large and very important part of the Holy Land: we have cleared up many geological problems, and we have made a considerable addition to the archæology and topography of the country.

We have also, at length, completed the great work of the Society in publishing the last two volumes which finish the "Survey of Western Palestine." The work has been in hand for four years; now that it is completed we can look upon it as the permanent record of the greatest geographical and descriptive enterprise ever undertaken for the elucidation of the Bible, and as a work which should form part of every great library.

Since Mr. Armstrong's return he has remained in the service of the Committee, and has been occupied, first, in laying down the geographical work of the Expedition, which is now ready for publication, and next, in preparing a Map of the whole of Palestine, which will contain all our own survey work hitherto done, with the French and other work, as far north as Beyrout, and will be joined on to the Society's already published reduced Map of Western Palestine. It will be in sheets, so that any one sheet can be withdrawn and a new one substituted on the arrival of new matter. He is now engaged upon laying down on this map the Old and New Testament names, boundaries, &c. It is intended, in short, to produce a map, which can be subsequently altered and improved, which shall cover both sides of the Jordan. This map will contain the modern names, with those of the Old and New Testaments. It will be published either as a Map of Modern Palestine East and West of the Jordan, or as a map showing the Old Testament names with the modern names, or as showing the New Testament names with the modern, or as a map showing all three. It has already been announced that subscribers to the already issued Old and New Testament maps will be enabled to exchange simply on payment of the difference in price and the carriage.

A great many photographs were taken in the Wâdy Arabah by Dr. Gordon Hull. Some of these have not, unfortunately, come out well. A selection, however, will be made of the best, and a descriptive catalogue written for them, and they will be issued as soon as possible.

As regards the work for the year 1885. There is little hope that the Firman for the Survey of Eastern Palestine will be granted in the present posture of things. If it were granted it would for the moment be useless, because all the Royal Engineer officers who have worked for the Fund are now on active service—Colonel Sir Charles Wilson, Major Kitchener, and Captain Mantell in Egypt; General Sir Charles Warren and Captain

Conder in South Africa—and there would be little chance of getting any other officer's services in this period of uncertainty. At the same time we have strong grounds for hoping to make from time to time very substantial additions to the geography of certain little known districts from other sources.

We shall also perhaps be able to undertake certain investigations in Jerusalem, and perhaps elsewhere, as occasion may offer.

It has been suggested that this time of inaction from field work may be utilised for a very important object included in our original prospectus, but as yet hardly touched, viz., the scientific collection of manners, customs, legends, traditions, superstitions, and religious and ritualistic survivals. The Committee are at present considering a scheme having this in view which has been submitted to them.

As regards publishing next year, we have made the following important arrangements :—

(1) "Mount Seir."

This volume has been written for the Committee by Professor Hull. It is now (Christmas, 1884) on the point of publication. It contains a popular account of the journey, and especially of that country, now known as the Wâdy Arabah, which was the special scene of his labours. A geological map and a geographical map accompany the work, with many other illustrations. The published price will be 10*s.* 6*d.*

(2) A new edition of Captain Conder's popular and delightful work, "Tent Work in Palestine," in crown 8vo., at 7*s.* 6*d.*

(3) A new and cheap edition of "Heth and Moab," uniform with the above, at 7*s.* 6*d.*

These two works will be ready by the end of January.

(4) "Our Work in Palestine." This little book, which ended with the commencement of the Survey, has been out of print for some time. It is proposed, as soon as time can be found, to bring out a new edition, carrying on the popular history of the Society's work to the present date.

(5) We propose to publish in the *Quarterly Statement* for 1885, the following important papers :—

(α) A Translation by Dr. Chaplin of a Hebrew Treatise by Maimonides upon the Temple.

(β) The Natural History Results of the Wâdy Arabah Expedition, by J. Chichester Hart.

(γ) A Supplement by Canon Tristram to his "Flora and Fauna."

(δ) A Paper by Sir Charles Warren on the Arabs of the Sinai Desert.

(ϵ) Topographical papers by Rev. W. F. Birch, Captain Conder, Mr. Boscawen, and other writers.

(ι) Certain geographical papers now in preparation, the results of observations made by a private traveller.

There remain in the hands of the Committee for publication :—

I. The Geological Memoirs by Professor Hull, F.G.S. We shall be able to report upon these when they are completed.

II. The Memoirs and Plans of the interrupted Survey of Eastern Palestine.

The Memoirs of the 500 square miles executed by Captain Conder are much fuller than those of the country west of the Jordan, because they deal with a district much less known, and fuller, if possible, of interest. Thus, though the area surveyed occupies little more than that covered by a single sheet, on the scale of one inch to the mile, the Memoirs are copious enough to fill a whole volume equal in size to one of those published on the "Survey of Western Palestine," while there are 400 drawings and plans and illustrations, besides a series of photographs.

The Committee have not yet decided on the form of publication of these Memoirs. They may possibly be published, as in the case of the "Survey of Western Palestine," by special subscription.

III. The drawings made for M. Clermont-Ganneau in the year 1874–5 by M. Lecomte.

Many causes have combined to prevent the publication of these most exquisite and valuable drawings. They were executed for the Committee by M. Lecomte, who accompanied M. Clermont-Ganneau to Palestine in the years 1874–5. They are between six and seven hundred in number, and are almost wholly of architectural and archæological interest. Since they were placed in the hands of the Committee, nine years ago, M. Clermont-Ganneau has been engaged in Constantinople, in Palestine, and in Paris, for the French Foreign Office. He has also held the post of Professor of Semitic Archæology at the Sorbonne. He is now, however, able to promise the necessary explanatory letterpress as soon as it is wanted. The cost of publishing this work in a worthy form will be about £1,500. Perhaps proposals will be issued for a subscription work in the spring.

IV. The copies of the "Survey of Western Palestine" which remain have been placed in the hands of Mr. Alexander P. Watt, of 34, Paternoster Row, who has been appointed by the Society their agent for the sale. They will be issued by him to libraries, &c., in order of application. *Subscribers and those who already possess the work are requested to note that no reduction will be made, either now or at any other time, in the price of this great work.* On the other hand, the Committee reserve to themselves the right of raising the price of the last copies.

In conclusion, the friends of the Society are earnestly requested to consider that the work is always actively going on; that funds are always needed; that the real and invaluable work which has been already done must be taken as an earnest of what will be done, and that their continued assistance is asked in support of an enterprise which gives results, solid, enduring, and for all time.

NOTES.

The income of the Society, from September 26th to December 12th, 1884, inclusive, from all sources, was £656 9*s.* 3*d.* On December 16th the balance in the Banks was £205 9*s.* 6*d.*

It is suggested to subscribers that the safest and most convenient manner of paying subscriptions is through a Bank. Many subscribers have adopted this method, which removes the danger of loss or miscarriage, and renders unnecessary the acknowledgment by official receipt and letter.

Subscribers who do not receive the *Quarterly Statement* regularly, are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

The only authorised lecturers for the Society are—

(1) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects :—
   The Survey of Western Palestine, as illustrating Bible History.
   Palestine East of the Jordan.
   The Jerusalem Excavations.
   A Restoration of Ancient Jerusalem. Illustrated by original photographs shown as "dissolving views."

(2) The Rev. James King, Vicar of St. Mary's, Berwick. His subjects are as follows :—
   The Survey of Western Palestine.
   Jerusalem.
   The Hittites.
   The Moabite Stone and other monuments.

(3) The Rev. James Niel, formerly Incumbent of Christ Church, Jerusalem.

ADDENDA TO THE FLORA OF PALESTINE.

I HAVE just received, through the kindness of M. William Barbey, of Valleyres, Vaud, Switzerland, a copy of his splendid illustrated work, "Herborisations au Levant," 4to., Lausanne, 1882, containing the results of a botanical expedition to the East, made by himself and his brother in 1880. I much regret that I had not the good fortune to see the volume before the "Fauna and Flora of Palestine" went to press. MM. Barbey only give the results of their own and Dr. Lortet's expeditions, but even so their catalogue comprises 38 species of phanerogamic plants, 13 of them grasses, which escaped my observation, and which must be added to the 3,012 species in my volume. In order that our catalogue may be as complete as possible, I trust you will afford space in the *Quarterly Statement* for these addenda. They are as follows :—

Papaveraceæ. 1. *Glaucium grandiflorum.* Boiss. Diagn., Ser. II, v, p. 15.—Valley of the Kedron. Not hitherto observed in Palestine or Syria.

Cruciferæ. 2. *Sinapis pubescens.* L. Mant. 95.—Beersheba.

Resedaceæ. *Reseda decursiva.* Forsk., æg. p. 67. Included by me as *R. propinqua*, var. *eremophila.* F. and F., p. 234.

3. *Caylusea canescens.* L. Syst. 368, var. *foliosa*, Müll.—Marsaba ; between Jerusalem and Jericho.

Violariæ. 4. *Viola occulta.* Lehm., Ind. S. Hamb., 1829.—Near Samaria.

Sileneæ. 5. *Silene apetala.* Willd., Sp. II, 307.—In cultivated ground, Valley of Achor.

6. *Silene canopica.* Del., Ill. Fl. Eg., No. 442.—Beersheba.

7. *Silene oxyodonta.* Barbey, spec. nov., Herbor. au Levant, p. 121, Pl. XI.—Plain of Esdraelon.

Alsineæ. 8. *Spergularia diandra.* Guss., Prodr. Sic., I, p. 515.—Kedron Valley ; between Jerusalem and Jericho ; by Dead Sea ; Esdraelon.

Malvaceæ. 9. *Malva ægyptia.* L. Sp. 981.—Southern Desert. Accidentally omitted in F. and F.

Leguminosæ. 10. *Trigonella aleppica.* Boiss., Flor. Or., II, 79.—Valley of the Kedron ; Jenin.

11. *Trifolium bullatum.* Boiss., Flor. Or., II, 138.—Fields near Beyrout.

12. *Glycyrrhiza glabra.* L. Sp. 1048, vars. *typica* and *violacea.*—Jordan Valley ; Wâdy Semakh.

13. *Astragalus trimestris.* L. 1073.—Philistia ; Beersheba.

14. *Astragalus camelorum.* Barbey, spec. nov., Herbor. au Levant, p. 131, Pl. III.—Southern Desert.

15. *Lathyrus setifolius.* L. Sp. 1031.—Southern Philistia.

Compositæ. 16. *Cynara sibthorpiana.* Boiss. Diagn., Ser. I, x, p. 94. —Jericho.

Convolvulaceæ. 17. *Calystegia soldanella.* L. Sp. 266.—Sea-shore at Sidon.

Scrophulariaceæ. 18. *Celsia glandalosa* Bouché., Linn., V, Lit. 12.—Valley of the Dog River.

Labiatæ. 19. *Sideritis taurica.* M. B., Taur. Cauc., II, 43.—On rocks in the Dog River Valley.

Salsolaceæ. 20. *Salsola canescens.* D. C., Prodr., p. 208.—Accidentally omitted in F. and F. Found by us on Lebanon. By MM. Barbey at Marsaba.

Euphorbiaceæ. 21. *Euphorbia parvula.* Del., Eg., p. 290.—In the Southern Desert.

Salicineæ. 22. *Salix triandra.* L. Sp. 1442.—Achzib. Not before noticed in Syria.

Iridaceæ. *Iris lorteti.* Barbey, spec. nov., Herbor. au Levant, p. 178, Pl. VII.—This superb Iris, one of the two species mentioned by me (F. and F., p. 423) as found in the woods of Galilee, has been described and beautifully figured in a full-sized coloured plate by MM. Barbey. It was found by Dr. Lortet in the same place where I collected it, near Kulat Hunin, above the waters of Merom.

Liliaceæ. 23. *Bellevalia sessiliflora.* Viv. Fl., Lib. 21, t. vii, f. 5.—Southern Desert.

24. *Muscari holzmanni.* Held., Att. Con. Fir., 228.—Achzib and Beyrout.

MM. Barbey also mention two undescribed species of *Leopoldia* or *Muscari*—one from the southern desert, the other from the northern coast.

Orchideæ. 25. *Serapias lingua.* L. Sp. 1344.—Near the Dog River.

Gramineæ. 26. *Andropogon rubescens.* Vis., Reg. Bot. Zeit., 1829, p. 3.—Near Ras en Nakurah.

27. *Alopecurus pratensis.* L. Sp. 88.—On the coast.

28. *Cynosurus callitrichus.* Barbey, spec. nov., Herbor. au Levant, p. 165, Pl. X.—Near Hebron and Jerusalem.

29. *Echinaria capitata.* L. Sp. 1488.—General.

30. *Lepturus incurvatus.* L. Sp. 1490.—Near Beyrout.

31. *Bromus rubens.* L. Sp. 114.—Dry places, throughout Southern Palestine.

32. *Lolium rigidum.* Gaud. Helv., I, p. 355.—Various places on the coast.

33. *Sphenopus gouani.* Trin., Fund. Agr., p. 135 = *S. divaricatus* Rehb.—The Ghôr.

34. *Festuca interrupta.* Desf. Atl. I, p. 89.—Waste places, Esdraelon.

35. *Catapodium loliaceum* (Huds. Angl., 43).—On the coast.
36. *Avena barbata.* Brot., Flora Lus., I, 108.—In the desert and in waste places. This is the unidentified *Avena* of F. and F., p. 444, No. 56, from Moab.
37. *Trisetum parviflorum.* Pers. Syn., I, 97.—Waste places in Judæa.
38. *Deschampsia media.* Ræm. el Schultz., S. II, 687.—On the coast near Achzib.

I may also here observe that I have identified the *Phleum*, No. 13, Fauna and Flora, as *P. græcum.* Boiss. Flor. Or., V, p. 481.

Also *Pennisetum*, No. 19, p. 442, F. and F. as *P., ciliare* (L. Mant. 302).

Aristida, No. 35, p. 443, F. and F., as *A. pumila.* Decaisne, Ann. Sc. Nat., Ser. II, 85.

Gastridium, No. 23, p. 442, F. and F., as *G. scabrum.* Presl., Cyp. Sic., p. 21.

Polypogon, Nos. 50 and 51, p. 444, F. and F., as *P. maritimum*, Willd. Nov. Act., III, p. 443; and *P. littorale*, Smith, Comp. Brit., 13.

Avena, No. 56, p. 444, F. and F., should be *Gaudinia fragilis* (L. Sp. 119).

Bromus, No. 110, p. 445, is *B. fasciculatus.* Presl., Cyp. Sic., 39.

Dactylis, No. 93, p. 447, F. and F., is *D. hispanica.* Roth. ; *cf.* Flor. Or., V, p. 596.

I wish also to correct the following identifications of grasses in the "Fauna and Flora :"—

Phalaris canariensis, p. 441, No. 5, should be *P. brachystachya*, Link in Schrad. Journ. 1, 3, as pointed out by Boissier, Flor. Or., V, p. 471.

For *Milium syriacum*, Boiss. No. 119, p. 448, read *M. vernale*, M. B. Taur. Cauc., I, 53, var. *montianum*, Cosson.

For *Melica boissieri*, Reut, No. 83, p. 446, read *M. ciliata* (L. Sp. 97), and erase Nos. 75 and 80, *Briza bipennata* and *Melica minuta.* The former species is identical with No. 87, F. and F., *Eragrostis cynosuroides.*

The long-expected completion of M. Boissier's most exhaustive and accurate work, "Flora Orientalis," of which the concluding part has only just reached me, enables me to revise my catalogue of grasses by the decision of the first living authority on the subject. And I am sure that all practical botanists will deal leniently with omissions and oversights, as well as with the necessity for the corrections enumerated above ; well knowing the difficulties of deciding on the often unsatisfactory or mutilated specimens before us, of this most perplexing of all botanical families.

M. Boissier's work enables me to add one species to the *Coniferæ* of Palestine, viz., *Abies cilicica*, Ant. and Ky., Æst. Woch., 18, 53, p. 409. It is the only *Abies* found in the country, and which I now well remember to have seen near Ehden on Lebanon, one of the localities given by Boissier.

Ephedra fragilis, F. and F., p. 452, ought to stand as *E. campylopoda*, C. A. Mey. Eph., 73. The two species have been generally confounded. The distinctions are pointed out by Boissier, *op. cit.*, pp. 714, 715.

I have but one fern to add to my catalogue, the common Adders' tongue, *Ophioglossum vulgatum* (L. Sp. 1518), found near Zebdany. But the number of grasses added to our list by M. Boissier amounts to no fewer than 47, bringing up the whole number of Palestinian *Gramineæ* to 216. I subjoin the names, with the localities given :—

1. *Panicum sanguinale.* L. Sp. 14.—General.
2. *Panicum crus-galli.* L. Sp. 83.—General in fields.
3. *Panicum colonum.* L. Sp. 84.—Coast near Sidon.
4. *Panicum eruciforme.* Sibth. Prodr., I, p. 40.—Ehden on Lebanon.
5. *Panicum numidianum.* Lam. Enc., IV, 749.—Near Beyrout.
6. *Setaria verticillata.* L. Sp. 82.—Near the coast.
7. *Andropogon ischæmum.* L. Sp. 1483.—Lebanon.
8. *Henarthria fasciculata.* Desf. Atl., I, p. 110, t. 36.—Near Sidon and Beyrout.
9. *Phalaris nodosa.* L. Syst., 38.—Coast and Lebanon.
10. *Heleochloa acutiglumis.* Spec. nov., Boiss., Flor. Or., V, p. 476.—Hadith, Lebanon.
11. *Phleum alpinum.* L. Sp. 88, var. *commutatum*, Gaud.—Snow-line of Lebanon.
12. *Phleum bœhmeri.* Wib., Fl. Wett., p. 125.—Hadith, Lebanon.
13. *Alopecurus gerardi.* Vill. Dauph., II., 66.—Subalpine Lebanon.
14. *Aristida sieberiana.* Trin. in Spring., N. Ent., II, 71.—Near Jerusalem.
15. *Aristida forskahlei.* Tausch., p. 506.—Sands near Beyrout.
16. *Aristella bromoides.* L. Mant., I, 30.—Lebanon above Sidon ; Antilebanon above Rascheya.
17. *Agrostis verticillata.* Vill. Dauph., II, 74.—In wet places, general.
18. *Agrostis alba.* L. Sp. 93, var. *scabriglumis.*—Brumman on Lebanon.
19. *Gastridium lendigerum.* L. Sp. 91.—Sidon.
20. *Corynephorus articulatus.* Desf., Fl. Atl., I, 70, Pl. XIII.—Sands, Gaza, Beyrout.
21. *Holcus lanatus.* L. Sp. 1485.—Lebanon.
22. *Holcus annuus.* Salz., Fl. Ting. exs.—Pine forests, Lebanon.
23. *Ventenata blanchei.* Boiss., spec. nov. Flor. Or., V, p. 539.—Cedar grove, Lebanon.
24. *Dactyloctenium ægyptiacum.* L. Sp. 106.—Coast near Sidon.
25. *Cynosurus elegans.* Desf., Atl. I, 82, Pl. XVII.—Hasrun, Lebanon.
26. *Eragrostis poœoides.* P. de B. Agr., 71.—Fields, general.
27. *Eragrostis megastachya.* Link., Hort. Ber., I, 187.—Coast.
28. *Briza spicata.* Sibth., Fl. Græc., I, 61.—Lebanon and Antilebanon.
29. *Poa diversifolia.* Boiss., Bull. S. Fr., 1857, p. 306.—Dimas, Lebanon.
30. *Poa trivialis.* L. Sp. 99.—The coast.
31. *Poa persica.* Trin. in C. A. Mey, Enum., p. 18, var. *alpina.*—Top of Lebanon.
32. *Molinia cærulea.* L. Sp. 95.—Upper Lebanon.
33. *Glyceria plicata.* Fries, Nov. Mant., III, 176.—In standing water.

34. *Festuca ovina*, var. *pinifolia*. Hackel in litt., Flor. Or., V, 617.—Higher Lebanon.
35. *Scleropoa maritima*. L. Sp. 128.—Coast near Sidon.
36. *Bromus flabellatus*. Hack., Boiss., Flor. Or., V, 648.—Near Jerusalem.
37. *Bromus alopecurus*. Poir. Voy., II, 100.—Galilee and the coast.
38. *Bromus squarrosus*.—L. Sp. 112.—Lebanon.
39. *Bromus brachystachys*. Hornung. Fl., XVI, 2, p. 418.—By the Jordan.
40. *Brachypodium pinnatum*. L. Sp. 115.—Lower Lebanon.
41. *Agropyrum panormitanum*. Parl. Pl., var. Sic. II, p. 20.—Hermon.
42. *Agropyrum repens*. L. Sp. 128.—Lebanon.
43. *Agropyrum elongatum*. Hort., Gr. Austr., II, 15.—Near Beyrout.
44. *Ægilops bicornis*. Forsk., Descr., 26.—Sandy places, coast.
45. *Psilurus nardoides*. Trin. Fund., I, 73.—Coast and interior.
46. *Hordeum secalinum*. Schreb. Spic., 148.—The Lejah.
47. *Elymus delileanus*. Schultz. Mant., 2, 424.—Central Palestine.

H. B. TRISTRAM.

Durham, 26th November, 1884.

A DOLMEN IN THE TALMUD.

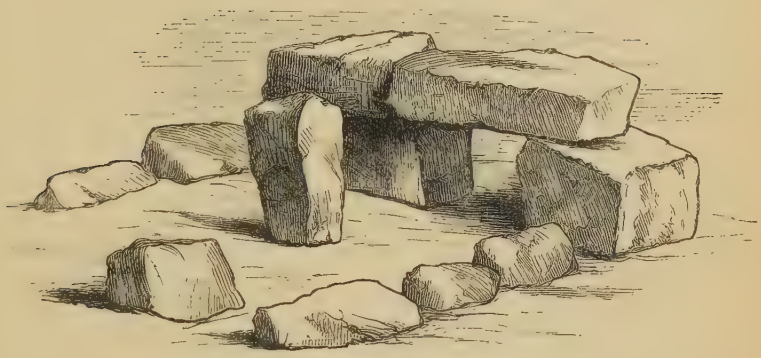
"RABBI ISHMAEL said, 'Three stones beside each other at the side of the image of Markulim are forbidden, but two are allowed. But the wise say when they are within his view they are forbidden, but when they are not within his view they are allowed.'" (Mishnah Aboda Zarah, iv, 1.)

This passage from the tract treating of "Strange Worship" refers to the idolatry of the second and third centuries A.D., before the establishment of Christianity by Constantine. R. Ishmael was a contemporary of Akiba (*circa* 135 A.D.). From the Babylonian Talmud (Baba Metzia 25 *b*) we learn that these three stones near the "Menhir of Mercury" (for Markulim was Mercury or Hermes, the god of the pillar) were arranged two side by side and the third laid flat across. From another passage (T. B. Beracoth 57 *b*) we gather that such symbols, viz., an "image" (צורא) or Hermes with a tirlithon in front of it, were commonly to be found.

From the Midrash on Proverbs xxvi, 8, we also gather that the cultus of Markulim (or Mercury) consisted in throwing a stone at his image, and it is well known that this practice was connected in Greece with the cultus of Hermes or Mercury.

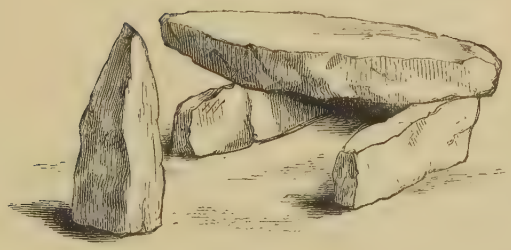
This trilithon was evidently a dolmen similar to the dolmen tables still erected by the Arabs in Moab, and its connection with a menhir recalls the "Sentinel Stones" which are found in Brittany, Scandinavia, and England, standing in front of a dolmen or trilithon.

Markulim on Mount Gilboa.



Monument on Mount Gilboa discovered by Captain Conder in 1872. ("Memoirs," Vol. II, p. 115.)

Markulim in Sweden.



The Dolmen and Sentinel Stone of Oronst. (Fergusson's "Rude Stone Monuments," p. 306.)

I feel little doubt that the curious monument which we discovered on Mount Gilboa near the village of Deir Ghazâleh in 1872, is one of the Markulim of the Talmud. It was, I believe, the first rude stone monument discovered west of Jordan (not including Phœnicia). The standing stone is 6 inches thick, 2 feet wide, 3½ feet high. I found it very firmly fixed. It was impossible to move it, and it is probably sunk to some considerable distance in the ground. The trilithon or dolmen has a table-stone 6 feet 9 inches long. The other stones form an enclosure such as often encircles dolmens in every land. The enclosure with a central stone is also a kind of monument found in Moab, as I have shown in my reports and memoirs. All these facts tell strongly in favour of the contention, which is supported by Lubbock, Forbes, Leslie, and other competent authorities, that rude stone monuments in all lands are intimately connected with the religious ideas of early tribes. This subject I have endeavoured to treat in "Heth and Moab," but a great many confirmatory facts have come to my knowledge since I completed that volume.

Idolatry was of course the general practice in Syria when the Mishnah was written, and in the tract above quoted we find mention of the sun, moon, planets, mountains, Zodiacal signs, trees, and stones, as objects of idolatry; also the sacred baths or springs of Venus, and the serpent or dragon. One other passage is of interest in connection with rude stone monuments.

"In Zidon, at the tree where they worshipped, they found beneath it a heap) or cairn, גל), said R. Simon to them, examine the heap.' And they examined it, and found in it an image (צורא). He said to them, as the object of worship is the image, we shall allow the tree to you." (Mishna Aboda Zara, iii, 2.)

In this case the menhir had been covered up in a cairn made of the stones thrown at it as an act of worship. The meaning of this custom has been made plain by archæologists, and each stone thrown is witness of a visit paid to the spot. The larger therefore the cairn the greater the veneration shown.

From another passage it appears (iv, 2) that offerings used to be placed on the head of Markulim or on the top of the menhir. In Brittany, and in Scotland and in India alike, menhirs may still be seen which form the nucleus of the cairn which surrounds them. This practice is probably also noticed in the Bible (Genesis xxxi, 45–48), but I have not met with any explanation of the cultus in the dictionaries and commentaries.

The arrangement of the trilithon and menhir, especially when the latter is surrounded by an enclosure as is the case in the Gilboa example, may be considered to represent the prehistoric prototype of such temples as were afterwards erected in Phœnicia or Greece, with a rude stone instead of a statue, and a pair of pillars standing in front of the fane, and supporting only a single block of stone. The relative position of the pillar and the trilithon appears sometimes to have had a relation to the sunrise or sunset, but this though observed by the modern Arabs is not an invariable rule.

In connection with this subject, a few words may be added as to hollows in dolmens and menhirs. The cup hollows have been described (see "Heth and Moab") in Moabite monuments. In Finland such hollows are made in stones, and connected with a charm against diseases, which are conjured into them. In Scotland the same hollows were used for libations of milk. Milk was poured through a hole in a menhir in the western isles off the Scottish coast. Another menhir in Aberdeenshire had a hollow in the top in which rain water accumulates, which the ignorant suppose to spring from the stone, and a cross-shaped stone, called Water Cross, was said to bring down rain when placed upright.

Visiting recently the well known Kits Coty House dolmen, near Maidstone, to see if there were any cup hollows in its table stone (which is slanted just like the table of a Moabite dolmen), I found the side stones pitted with deep hollows, some of which it is impossible to suppose to have been natural erosions. About a quarter of a mile south of Kits Coty House there is a ruined circle of fallen stones (sandstone from the neighbourhood, as is Kits Coty House also). The farm people believe that these stones cannot be counted, a legend which is I believe not peculiar to this circle alone. I found in some of the stones of this circle (which are 7 to 8 feet long) holes like those in the Cotty House, but still more plainly cut with the object of holding something. Perhaps, as in so many other cases, libations of blood or milk, honey, or water, were once poured on these holy stones, or small offerings placed in the stone itself, by those who regarded these monuments as sacred. The offering was placed on the top of the stone in the case of Markulim as above noted. One of the best examples of such holes in side stones is noticed by Fergusson, in the famous covered dolmen at Gavr Innis in Brittany.

There is another circle at Addington Park, near Maidstone, which I have not yet been able to visit, which has a curious outlying cairn on the east or north-east. We may compare the circle and gigantic cairn of Wâdy Jideid in Moab.

C. R. C.

THE ARAMAIC ALPHABET.

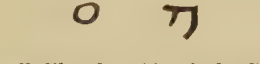
In my paper on Hebrew inscriptions, published in the *Quarterly Statement*, October, 1883, I have mentioned the inscription at 'Arâk el Emîr. This we both copied and photographed, and my original copy made on the spot differs in the first letter from that of previous writers. According to Levy, it has the form of a rude *Teth* open at the top.

According to my copy it is round like an O, and could only read as an *Ain*.

I did not when copying the text reflect on the importance of this difference, but the photograph, though taken rather at an angle, appears to support the copy, and de Vogüé reads this letter as agreeing also with my view.

The importance of this difference lies in the fact that the inscription appears as a whole to be Aramaic rather than Phœnician; but that the first letter if it be an *Ain* cannot be Aramaic, but must belong to some alphabet allied to the Moabite Stone, according to the received views. The Aramaic alphabets, whence square Hebrew developed, are peculiarly marked by the open loops of the letters, especially of the *Ain*. In order to satisfy the learned world, a squeeze (which would require a ladder), or a new photograph of very large size, may become necessary; but it seems strange that such a difference of copy should occur in so very distinct and well preserved a text, and I incline to believe that my copy, made without any reference to the reading of the text, is correct.

Now the inscriptions from Medeba seem to present us with exactly the same problem, and their genuineness is rendered the more probable, as some of their most suspicious forms have (as Dr. Taylor kindly points out to me) been found also in unquestionably genuine texts from Arabia. In No. 2 of the Medeba texts we find two letters almost identical with two in the 'Arâk el Emîr text, namely,



The first of these is small, like the *Ain* of the South Semitic Alphabets, the second appears to be an Aramaic letter.

Now almost the only great problem concerning the alphabet which remains to be solved, is that of the connection of the South and North Semitic Alphabets. The link may perhaps exist, not in Arabia, but in Moab, and the Medeba texts may serve to point it out. It seems that, contrary to expectation, forms of the Aramaic may occur with Phœnician or South Semitic forms in the same inscription. The 'Arak el Emîr text in all probability dates as early as 176 B.C., and presents the same confusion of two alphabets, generally believed to be distinct. We have, it is true, not very much to guide us in drawing conclusions, but the Moabite texts here noticed may perhaps induce palæographical authorities to extend their researches in a new direction in treating the relations of the various branches of the earliest alphabet, that of the Phœnicians. I should note in conclusion that Mr. Doughty has brought home squeezes of some Sinaitic and Aramaic inscriptions from the neighbourhood of Mecca which may perhaps cast light on this question.

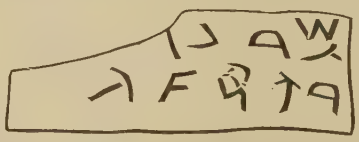
C. R. C.

INSCRIPTIONS.

It may be convenient to give a *résumé* of the epigraphic results of the Survey of Palestine, which have been more numerous and important than might perhaps be supposed, without collecting those scattered through the pages of the Memoirs.

HEBREW.

1. The inscription on a tomb in the Jordan Valley, which appears to be perhaps as old as the Siloam text, was discovered by me in 1874. (Memoirs, vol. ii, p. 396.) It is here given for comparison.

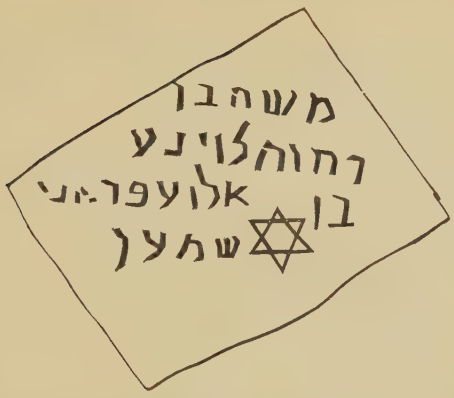


2. The curious text from Umm ez Zeinât, which reads, perhaps, Eleazar Bar Azariah, was copied by me after being discovered by Sergeant Armstrong in 1873. (Memoirs, vol. ii, p. 71.) As regards this it might perhaps be suggested that we have here the tomb of Rabbi Eleazar ben Azariah, who died 83 A.D. He was one of the Tanaim (Mishnah Beracoth, iii, 7), a disciple of R. Jonathan ben Zaccai, who died 73 A.D. Both were priests. R. Eleazar appears to have succeeded Gamahil the younger at Jamnia. (*Cf. Pirke*, Aboth iii, 17.) The discovery of these ancient Hebrew texts during the Survey may be considered an important addition, especially as the zeal of M. Clermont-Ganneau has only added the Gezer text and the yet unpublished Phœnician text from Silwân.

3. The square Hebrew inscription from a tomb at 'Ain Sinia was copied by C. F. T. Drake in 1872. (Memoirs, vol. ii, p. 302.) It appears to read, Moses bar Eleazar bar Zechariah the priest. This may be ascribed to the Herodian period with confidence.

The well-known inscription at Kefr Birim is also noticed in the Memoirs, vol. i, p. 233, and that at Nebratim, vol. i, p. 244, and at el Jish, vol. i, p. 225.

4. Some Jewish graffiti at Neby Samwîl are of interest. They cannot be older than 1157 A.D., but they are not recent, because they have been plastered over, and the plaster is old and has fallen off. The most important is here given from the voussoir of a pointed arch with mediæval mason's marks (the shield of David) and diagonal tooling. It appears to read, Moses Ben Nahum Levi . . . Ben Aloazer . . . Shemon. This may be of value for comparison with the graffiti on the osteophagi from the Mount of Olives described by M. Clermont-Ganneau. The form of the *Shin* is much later than that on some of these osteophagi. The same may be said of the *Ain*, *Mim*, and *Lamed*, but the *Zain* seems to have a peculiar early form, if rightly read, and the *Aleph* is also peculiar.



Among the Jerusalem inscriptions which I have collected together for the Jerusalem Volume of the Memoirs will be found mentioned the six well-known Hebrew texts, namely, the Beni Hezir Tomb, and the tomb found by De Vogüé; the sarcophagus of Queen Sara, and the stele found by De Saulcy with the letters copied at the Torph Gate by Sir Charles Wilson, and the Phœnician letters on the Temple wall; as also the Siloam text, the fragment of a text from Kefr Silwân, and the two supposed letters on the so-called "Egyptian Tomb" in the Kedron Valley. These, with the three Phœnician texts of Urm el 'Amîn (Memoirs, vol. i, p. 183), and the coffin of Eshmûnazar, the Gezer Stones, and the Pillar of Amwâs, make a total of nineteen Hebrew and Phœnician texts known in Palestine. The Moabite Stone and the 'Arâk el Emîr text East of Jordan must be added to these. The graffiti are not counted, nor the numerous Jewish tombstones at Taffa. (Memoirs, vol. ii, p. 277.)

GREEK.

These are extremely numerous in Palestine, the majority being Christian, and subsequent to the fourth century. The most valuable is the stele of Herod's Temple found by M. Clermont-Ganneau. The following are the new ones found by the surveyors within the Survey.

5. The inscription of the Cathedral of Tyre, mentioned, but not given, Memoirs, vol. i, p. 73. I copied it in 1881.

ΡΟΝΤΗΝ
ΟΠΟΜΗ
Ο . . ΟΙ . . Ν
ΚΡΗΤΗΣ

See Appendix, vol. iii, p. 428.

6. Greek text at Deir Dugheiya, which was found first by Renan, in honour of John the Baptist and St. George. (Memoirs, vol. i, p. 115.) It appears to have been rediscovered in 1877.

7. Greek Christian text of Siddikîm. (Memoirs, vol. i, p. 138.) It contains the name of St. Procopius and the Deacon Eusebius. From the contraction of the word Deacon it might be thought—as also from the Jerusalem crosses above the text—to be of Crusading origin.

8. Marble slab from Masûb. A funerary text, probably not earlier than the 12th century. (Memoirs, vol. i, p. 168.)

9. Greek Christian text from Marûn. (Memoirs, vol. i, p. 251.) On p. 260 is given another, which had been already copied by Renan.

10. Inscription on an early Christian tomb at Shefa 'Amr. (Memoirs, vol. i, p. 341.)

11. Inscription at 'Abûd, also found by Sir C. W. Wilson in 1866. (Memoirs, vol. ii, p. 303.) "Memorial of the Holy——."

12. Medæval text, "Memorial of George," at el Hats. (Memoirs, vol. ii, p 321.)

13. Inscription on font at Khŭrbet Kilkh. It was found by Sergeant Black, but had, I believe, been already copied by M. Clermont-Ganneau. (Memoirs, vol. ii, p. 336.)

14. Inscription almost illegible, copied by C. F. T. Drake at 'Akrabeh. (Memoirs, vol. ii, p. 388.)

15. A few letters from another stone at the same place.

16. Inscription at Mejdel Yaba, "The Church of St. Cerycus" (an early convent), or perhaps of the "Holy Herald"—that is, probably, of John the Baptist. (Memoirs, vol. ii, p. 361.)

17. El Mujhâr, a Greek Christian text. It was copied by M. Clermont-Ganneau in 1874, of which fact we were not aware. (Memoirs, vol. ii, p. 427.)

18. Dedication by Martin the Deacon. This also was copied by M. Clermont-Ganneau. (Memoirs, vol. ii, p. 134.)

19. Deir el Kelt. Greek and Arabic text over the door, and a number of mediæval Greek texts on the pictures. (Memoirs, vol. iii, pp. 193–197.) The texts at Koruntil and Kasr Hajlah were already known. (See Memoirs, vol. iii, pp. 203, 204, 215, 216.) The latter have since been entirely destroyed.

20. A few letters at Ascalon.

21. Deir el Belak, Greek Christian. (See Memoirs, vol. iii, p. 248).

22. Another from the same place. (Memoirs, vol. iii.)

23. Meidân ez Zeid. (Memoirs, vol. iii, p. 250.) A Greek funerary text.

24. A second found in 1877 on the same race course near Gaza. It is not given in the Memoirs. It is Christian, beginning, "The earth is the Lord's and the fulness thereof," and records the facing of some building with stone by the Deacon Alexander. It is probably not older than the fifth century. (See *Quarterly Statement*, 1878, p. 199.)

25. Sheikh Rashed. (Memoirs, vol. iii, p. 253.) A mediæval Greek Christian text in two lines.

26. Greek text in the Hebron Haram (Memoirs, vol. iii, p. 340); this is additional to one already known.

27. Khoreisa. Greek Christian text. "This is the gate of the Lord,

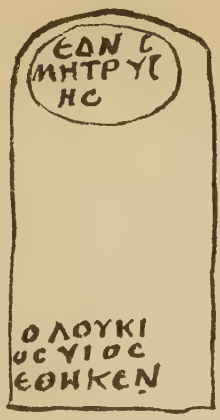


Fig. 1.

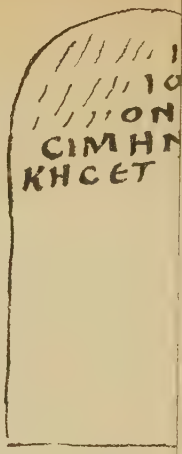


Fig. 3.

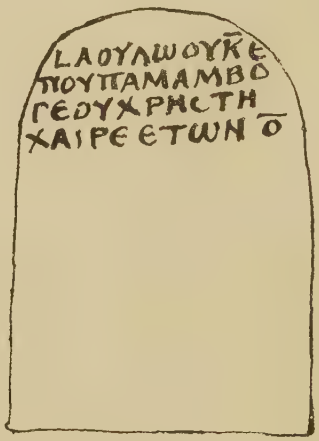
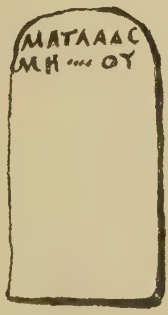
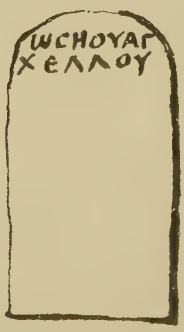


Fig. 2.





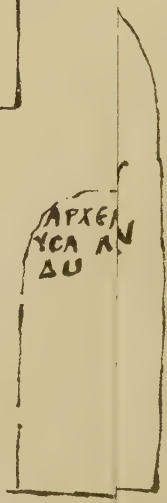


Fig. 4.

Harrison & Sons, Lith., St Martins Lane W.C.

the righteous shall enter in thereat." It is probably of the Byzantine period. (Memoirs, vol. iii, p. 357.)

28. Masada ; a painted text in a cave, the word Kuriokos, "of the Lord." (Memoirs, vol. iii, p. 421.)

29. Umm el Buruk, East of Jordan ; a tablet with the name of Antonius Rufus in Greek. This has yet to be published.

30. 'Ammân. Greek text in the wall of the Cathedral, with the name of Gordiana. To be published in the Memoirs.

31. Jerusalem. A Greek Christian text from the north wall, which has not been previously published, so far as I have been able to ascertain.

32. A text from those of Jerâsh appears to be new (see the account of the Royal visit, *Quarterly Statement*, 1882, p. 219) ; but see also April, 1883, p. 108, and September, 1870, p. 389, where Canon Girdleston gives a yet longer text in hexameter.

ROMAN AND LATIN.

33. Milestone north of Jerusalem. (Memoirs, vol. iii, p. 55.)

34. Milestone at Fukeikîs near Hebron. (Memoirs, vol. iii, p. 328.)

35. Milestone near 'Ammân. To be published in the new Memoir.

36. A fine Gothic tombstone found near the Zion scarp by H. Maudslay. Noticed in the Jerusalem Volume of the Memoirs.

NABATHEAN.

36–37–38–39. Four texts from Medeba, found by Latin missionaries, and copied by me in "Jerusalem." As regards these texts, I find that Colonel Sir C. Warren has published another from Umm er Rasâs in the *Quarterly Statement*, 1870, p. 327, which is very valuable for comparison.

C. R. C.

GREEK INSCRIPTIONS.

Those represented in the accompanying plate (figs. 1–8) were copied in 1873 by Rev. W. Wright and myself, in the village and at the tomb of Sûk Wâdy Brarda (the ancient Abila), on the Abana River. Though mentioned in the Memoirs (Special Papers, p. 113), they have not been published. They are in the collection made by Waddington.

There is a fourth tablet uninscribed to the right. These are over a sunk tomb north of the river.

Abila existed as a town in 60 B.C. The Roman inscriptions here date about 250 A.D. The forms of Greek letters are uncial ; but these forms are found at Jerâsh probably as early as the second century A.D. They became common in the fourth and fifth centuries ; all the inscriptions here are funerary.

C. R. C.

SIN AND SAD.

According to the students of literary Arabic the distinction of these two letters is most carefully preserved in speaking, and they are never confused. Nevertheless, even in the dictionaries, a few words may be found which are occasionally written with either.

In our recent survey we found the native scribe, who was intelligent and well-instructed, sometimes unable to distinguish the two letters in the pronunciation by the Bedawin of local names : such as Wâdy Sîr and the ruin of Sûr, and it is commonly said in Syria that the nomadic tribes make no distinction between *Sin* and *Sad*. Even among the teachers of Nahu or correct speech there is a difficulty, for when hard pressed they are obliged to admit that a deeper vowel sound accompanies the *Sad* than that belonging to the *Sin*. Thus even to the present day we have a survival of the syllabary from which the distinction of some Semitic letters originates; and this is but one example of the importance of studying the local peasant dialect of Syria, which is very different in many respects from the polite Arabic of literature, preserving as it does archaisms which are of the highest value for archæological purposes.

C. R. C.

DISTRICTS IN PALESTINE.

The hills north of Jerusalem are divided into various government districts, bearing ethnic names, viz. :—

Beni 'Amir	....	....	....	Sons of Omar.
Beni Hârith	....	....	....	Sons of Aretas.
Beni Murreh	....	....	....	Sons of bitterness.
Beni Salim	....	....	....	Sons of peace.
Beni Zeid	....	....	....	Sons of increase.
Beni Hamâr	....	....	....	Sons of the ass.
Beni S'ab	....	....	....	Sons of stubbornness.
Beni Hasan	....	....	....	Sons of beauty.
Beni Mâlik	....	....	....	Sons of royalty.

These are not pastoral or nomadic, but agricultural districts, with a settled population of Fellahin. There are no Arabs in these districts, and historically the nomadic tribes seem never to have held them. I have never seen any explanation of these names, nor does their origin seem to be known in Palestine. M. Clermont-Ganneau has indicated the interest of the names, but has not explained their origin. Professor Palmer in revising my nomenclature has added the word Arabs to the title, apparently thinking that they applied to existing tribes in Palestine, but the districts are entirely free from nomadic tribes, nor are any existing Arab clans west of Jordan called by these names.

If, however, we turn to the map of Arabia in the days of Muhammed and of Omar, we find the following tribes represented :—

Beni 'Amir, a tribe of the Nejed near Yemana, or again south-east of Medina.

Beni Hârith, a tribe of Yemen north-east of Sana.

Beni Murreh, both east of Medina, and south of the Jauf Oasis.

Beni Suleim, east of Medina.

Beni Mâlik, a division of the Beni Temîm, who lived near Yemâna.

It was with the aid of these and other tribes that the famous Khaled defeated the Romans on the Hieromax in 634 A.D. ; and under Omar they swept over Palestine soon after.

It seems therefore probable that in these local names we have a trace of Omar's Conquest of Syria, and that the hills of Judea and Samaria were regularly portioned out among his followers. The noble families of Jerusalem still claim to have "come over with the conqueror" at this time. We have thus only another instance of the survival in Syria of early Moslem divisions, and the division of the Keis and Yemeni factions, which dates back to the early days of Islam, is still hardly extinct, and is well remembered in Southern Palestine.

This identification of the tribes presents a curious and interesting historic parallel to the division of Canaan by Joshua among the triumphant tribes who (as in Omar's time) entered Palestine from beyond Jordan.

C. R. C.

THE SAMARITAN TEMPLE.

Is there any satisfactory proof that the Samaritans ever erected a temple? Josephus speaks of Sanballat's Temple (2 "Antiq.," viii, 2–7), but gives no account of it, and his Sanballat cannot be the Sanballat of the Bible if he lived in the days of Alexander the Great. In the New Testament only the mountain is noticed (John iv, 20); and Epiphanius in the fifth century speaks of the Samaritans as worshipping in a circle open to the air—such an enclosure as they still use. The Samaritan literature is all very late, and makes Joshua erect a temple which Sanballat only restored. The twelve (or ten) stones which the Samaritans point out as part of their temple are probably terraced walls of Justinian's fortress. On the whole it seems to me probable that they never had anything more than at present, viz., a sacred rock with a well-marked cup hollow in its surface—probably their altar, and enclosures with dry stone walls, where they congregated on the holy mountain.

C. R. C.

LOT'S WIFE.

Irenæus believed Lot's wife to be still visible in his own days near the Dead Sea, "still showing her feminine nature" and apparently not quite a stone. Antoninus Martyr in describing his visit to the locality is careful to controvert the idea that the statue had been diminished by being licked by animals. It must have been to some stone or rock (apparently west of the Dead Sea) that these writers refer. Sir John Maundeville still saw the statue "at the right side" of the Dead Sea. It seems possibly to the peculiar crag now called Kurnet Sahsul Hameid, "the peak whence Hameid (an Arab boy) slipped down," that they all refer. It is a crag somewhat like a human figure, jutting out of the cliffs near Kumrân, not far from the Hajr el Asbah.

C. R. C.

EN ROGEL.

It is pretty generally allowed, I believe, that the real site of En Rogel is the present Virgin's Fountain opposite Zoheleth, and not, as the Crusaders thought, the Bîr Eyûb, which is too far south, and not a spring at all.

The usual translation of En Rogel is "Fuller's Spring," but "Spring of the Foot" has recently been suggested. I would suggest that both are equally unsatisfactory. In Arabic Rijlah means a water channel (*locus ubi aqua fluit*, Freytag), perhaps derived from *rijl* "foot," because such channels are made with the foot by the peasantry. There is an 'Ain Rujeileh or modern En Rogel near the west margin of Sheet XVIII of the Survey.

If En Rogel mean "Spring of the Channel," and if it be—as can be shown on quite independent considerations—the present Virgin's Fountain, the name is evidently derived from the famous rock-cut channel leading from the back of the cave in which the spring rises.

C. R. C.

AIN TABGHAH.

It seems to have escaped notice that this place is mentioned in the Talmud, which is important, as showing the name to be ancient, and thus perhaps presenting a strong argument against the idea that this spring is the one which Josephus intends in speaking of the Fountain of Capharnaum.

The site, as is well known, is between Tell Hûm and Minieh, and fine springs are here dammed up in a reservoir, while several curious round

water-towers (including 'Ain Eyûb) exist immediately to the east. The name means the "Dyer's Spring." (See the notice in the "Princes' Tour in the Holy Land.")

In the Talmud (Tal. Jer. Ekha, ii, 2, v Midrash) a certain Migdol Tzeboya is mentioned, and according to Neubauer was on the Sea of Galilee (Geog. Tal., p. 218), this name meaning "tower of the dyers." (מגדל צבעיא) is identical with the Arabic Tâbjhah. Twenty-four weavers' shops stood at this place. Perhaps this may explain the curious water-towers found both at 'Ain Tâbjhah and near Mejdel. They may have been used as wells in which to steep the stuffs while being dyed, and this explains the name "Tower of Dyers." They clearly were not connected with aqueducts, though a short mill lade led from the great reservoir on the spot, which is probably only about a century old, and built by the Zeidân family.

C. R. C.

KADESH BARNEA.

A SCHOLARLY work by Dr. H. Clay Trumbull has just been published in America respecting the site of this city. I hope I shall not be considered contentious if I take exception to the conclusions of the author, though supported with much care and candour, and shared by many explorers and scholars who have preceded him. There is much that is most valuable in the book, but when we find that Seir and Mount Hor are moved to the west of the Arabah, and that 'Ain Kadîs is shown much further east than on preceding plans, it seems that permanent harm might result from leaving it to be supposed that the question of Kadesh was finally settled.

Taking the questions which I would wish to raise as they occur in the book, I would first note :—

Page 93, *Seir* = Es Seer. This looks well in its English garb, but we must ask first what is the spelling of the Arabic. The Hebrew is שעיר, of which the proper Arabic equivalent is Shar, a word in use with same meaning as the Hebrew, viz., "shaggy." In spite of the authorities quoted it seems that Seer, or Sîr, or Sirr is the common Arabic geographical term found all over Palestine meaning a "route" or "highway," unless it be spelt with *Sad*, in which case it means a sheepfold, or if it be really Sirr it means "gravelly." Until it be shown to contain the guttural of the Hebrew, it cannot be considered to represent Seir, especially as it should begin with *Shin*, not with *Sin* or *Sad*. The distinction made between a Country of Seir and Mount Seir (p. 85) does not seem to be well founded, though necessary to the theory which would find a Seir at Seer independent of Mount Seir, the rugged chain east of the Arabah. Kasr es Sir (p. 94) would mean probably "the sheepfold tower," and as is so often the case among the Bedawîn, the region round

may probably have been named from this ruin. (Compare Sheet XV of Survey of Palestine.)

Page 101, *Edom.* It is no doubt the case that Idumæa was a name applied to the country even as far north as Hebron about the Christian era, but the name Edom or "red" must surely have applied to the red sandstone country, and not to the white chalk plateau of the Tîh.

Page 124, *Rekem.* I fail to find anything to support the view that there were two Rekems, one at Petra, one at 'Ain Kadîs. All the authorities agree that Petra was called Rekem, and the Jews appear most clearly to have believed that Kadesh Barnea was at or near Petra. The second Rekem seems only necessary to the theory of 'Ain Kadîs being Kadesh Barnea.

Page 127, *Hor ha Har.* No reference is given in note, and it seems to me very clear that the references in Numbers xxxiv, 7, 8, are to a Mount Hor in the Lebanon, not to the mountain in Edom. I have tried to show elsewhere that we should probably read Hor ha Khar, "Mountain of the Phœnicians," the change of ח and ה being very slight.

Page 130, *Hor.* Dr. Trumbull says that Josephus does not suggest a particle of evidence in favour of his assertion that Mount Hor was near Petra. I would venture to suggest that he does not agree as to where Jerusalem was, or even as to Sinai. The Mount Hor now shown is that which Josephus believed in, and probably it was as well known as Sinai or any other famous mountain (Carmel, Tabor, Hermon, etc.) which are undoubted, though we have little but tradition in some cases to rely on. Dr. Trumbull accepts the usual Sinai, but the site of that mountain does not rest on any more secure basis than does the traditional site of Mount Hor—both are too famous ever to have been lost. In the case of Mount Hor we have in fact that "consent of tradition" (Jewish, Christian, and Moslem) which, as I tried to show in "Tent Work," is generally indicative of continuous preservation of an ancient site. The position in the border of Edom is quite in accordance with the usual understanding of the desert geography, and the new proposed situation at Jebel Madurah seems far too arbitrary to upset the consensus of tradition and opinion in the matter.

Dr. Trumbull supposes Madurah to be a form of Moseroth (מוסרת), remarking that D and S are convertible in Eastern speech. I do not think this is the case. The soft T and the soft S (*Te* and *Sin*) are convertible, and so are the soft D or Dh and Z (*Dhal*, *Dal*, *Zain*), but I do not recall any instance where D and S are convertible. Dr. Trumbull is surprised (p. 228) that I should suggest Madurah to be the same as Adar, which he appears to consider (p. 280) to be spelt with the guttural *Ain*. In Joshua (xv, 3), however, it is spelt אדר, which is distinct from the Eder (עדר) of another passage (xv, 21). The *Mim* being a servile letter, Madurah if spelt מדרה, which one is led to suppose is the case from Robinson's transliteration, might well be the same as Adar. The site of Eder may perhaps be at the ruin 'Adar, near Gaza.

"Kadessa" (p. 136). It would be worth while to examine this vicinity

carefully, in order to find whether the name Kadessa, reported by Berton, really exists, or was only manufactured for his benefit. No effort seems lately to have been made to discover this.

Page 170, *et seq.* Judging from the Arabic, the word Rekem would seem to mean "variegated," perhaps from the bright colours of the Petra sandstones. (See Freytag, Lex.) The word Kerm (p. 174), spelt with the *Kofh*, generally means a tree stump.

Page 211, "Zephath." The radical meaning of this name in Hebrew and Arabic is the same, "to be clear," "bright," "conspicuous," "shining." The identity of Zephath and Sufâh can hardly be doubted by any who consider the roots whence the two words originate. The suggestion of Sebeita or Sebâta for Zephath has always seemed to me to argue a want of scholarship on the part of Rowlands. The Arabic name seems to be from the root Sebt, "rest," which has not a single letter in common with the root whence Zephath originates. Philogically at least (and I think geographically as well) Robinson's suggestion is preferable to that of Rowlands, because it is radically sound, and the other radically unsound. There was a Zephathah near Mareshab (2 Chron., xiv, 10), which as I have before pointed out survives at the ruin Safieh, a word from the same root as Safah.

Page 212, "Hagar's Well" at Moilâhhi, depends on a tradition of the Beit Hajar. We ought to be informed how this latter name is spelt, whether with *He* or with the guttural. In the latter case it would simply mean "House of Stone," while Moilâhhi is probably a vulgar Bedâwi pronunciation like other words with a supernumerary *Wau*, and means "salt." If a tradition of Hagar does here exist, it is not free from suspicion of monkish origin, and the same may be said of 'Ain Kadîs, for not only have Christian remains been found in this desert, with Arab traditions of Christian settlements, but we also know from Jerome and from Antoninus Martyr of hermitages and monasteries in various parts of the Tîh.

"Hezron," page 228. Dr. Trumbull has omitted to notice what appears to me to be a strong argument, which, as far as I know, I was the first to suggest in the identification of Hezron. He does not himself find this name anywhere in the desert, yet all good maps show the Hadîreh hill west of Wâdy el Yemen. The proper Arabic equivalent of Hazor חצר, is Hadîreh (حضيرة), which has the same meaning, "enclosure;" and the Arabic *Dâd* is one of the two proper equivalents of the Hebrew *Tzadi*. It is strange that Dr. Trumbull should have been quite silent as to this suggestion, which if it be correct settles the Kadesh Barnea question for ever. As to the meaning of Hazor and Hazerim, we found in 1881 that the word Mahder (radically the same) is applied by the Arabs beyond Jordan to the ancient stone circles in at least one case; perhaps such circles exist at Jebel Hadîreh. The thorn enclosures would be called Sîr (see p. 281), and the Hazors seem probably to have been old cromlechs or circles, funereal or of religious use.

Page 276. *Hawy*, usually rendered "winds," will be found to be

derived from a word meaning a gorge or precipice, which fits well in the case of Kaukab el Hawa, and in other instances.

Page 278. The opinion of Levy and other epigraphic authorities is generally supposed to have settled the date of the Sinaitic inscriptions as not earlier than the 4th century.

Page 283. 'Ain el Qadayrât appears to be spelt with a *Dad* by mistake. There is no such root in common Arabic, and the root meaning "omnipotence," is spelt with a *Dal.*

Page 289. The suggestion of 'Ain Qasaymeh for Kaisam (קיסם) is free from philological objection, but Dr. Trumbull should consider Neubauer's curious explanation of the Targum, reading Kaisam for Azmon. The suggestion Qadayrat for Adar is objectionable, because Adar is spelt with *Aleph* and *Dal*, while according to Dr. Trumbull Qadayrat is spelt with a *Dad;* in which case the Hebrew would be not אדר, but קצר. All these suggestions seem to be far too vague to carry conviction; and Qasaymeh probably means "division," or "halving," as the Arabs say. There seems no real reason for rejecting the Arab legend of a Christian boundary at this point (see p. 291), as the district once had a Christian population. The word Azmon is most likely to survive in Arabic in the form *'Atmeh.*

As regards the Exodus route, there is little in Dr. Trumbull's careful paper which will be new to readers of Brugsch, Tomkins, &c. The question of the wall *Shur*, and of the *Yam Suph*, is treated with great clearness and force, and leads to conclusions which will intime be generally accepted.

It is to be regretted, however, that sufficient notice has not been taken of the facts (both geological and engineering), which leave it indisputable that the level of the Red Sea has been changing, and that the Isthmus of Suez has been growing broader within historic times. The existence of a Nile branch down Wâdy Tameilûb, which is important in this connection, is also not noticed. As to Brugsch's idea (p. 327 *et seq.*), that Khetam חתם and Etham איתם are the same, I can only say I agree with Professor Robertson Smith in regarding this as very doubtful. It seems far more probable that the Atuma of the story of Saneha is Etham, and not as generally supposed Edom. The Egyptian sign ⌓ may be read as *D*, but is most often *T.*

Page 331. "The fortress of Kanaan has not heen identified." This seems to be written before Dr. Trumbull had seen my paper on the subject, as my suggestion of Kana'an, a large ruin near Hebron, met with hearty acceptance from Mr. Tomkins.

Special attention should be called to the deduction from Exod. x, 19, which Mr. Trumbull brings forward as showing the direction of the Yam Suph. The rationalistic explanation of the pillar of cloud and of fire which seems suggested on p. 397 is also very interesting.

The map requires a word of notice, for it is not clear why 'Ain Kadîs is there shown much further east in longitude than is the case on Palmer's map or Holland's map. The result of moving Mount Seir and Mount Hor westwards, and Kadîs east, is to bring them much nearer together, but

the site of 'Ain Kadîs is still too far west to suit the requirements of the case. Generally speaking, one feels that the evidence has been rather twisted in favour of 'Ain Kadîs, though Dr. Trumbull has striven to be impartial and candid.

The omission of any notice of Hadireh, and several minor errors above pointed out, seems to spoil the completeness of the work.

Robinson's site at 'Ain Weibeh is conjectural. Perhaps Kadesh may yet be found in the vicinity of Jebel Madurah, where Berton claims to have found the name. The name Wâdy Fikreh, or the "cloven valley," at this place might have some connection with the rock cloven at Kadesh. It has been established that an 'Ain Kadîs does really exist further west, but it is not established that this is the site of En Mishpat. It may be either a monkish site, for the monks were not careful as to the biblical requirement of their sites; or it may indicate that the name Kadesh applied to a large tract, but the Scripture narrative seems clearly to point to a site for Kadesh Barnea close to the Arabah.

The excursus on Set, though interesting, is not novel, and it seems hardly worth while to have revived the suggestion that Set was connected with the Assyrian word Sed, and the Hebrew Shedim, meaning "powerful." Set is more probably connected with Thoth, as meaning a "pillar" or "stone," for both Set and Thoth were pillar gods and gods of darkness, night, and the moon, and the determinative accompanying the name Set in hieroglyphics is a stone.

The route of the Exodus as laid down by Dr. Trumbull seems to be a mean between three views—those of Brugsch and the traditional, together with that resulting from the latest observations and discoveries. Surely however the wanderings are as meaningless as they well could be, extending from Ism'ailieh to Tell Hîr, and back again west of the Bitter Lakes, to cross the sea at Suez. The view which seems destined to survive is that which discards the old traditional Baal Zephon at Jebel Attakah, and makes the crossing to have occurred near Ism'ailieh. Bir Mejdel, East of El Jesr, is a relic of the name Migdol, and the name of Baal Zephon may perhaps survive in Birket Balah. The old sites near Suez rest on no sound basis, and the fact that the head of the Gulf of Suez was once much further north is now fairly well established.

C. R. C.

ROUND MOUNT CARMEL.

Haifa, 29th November.

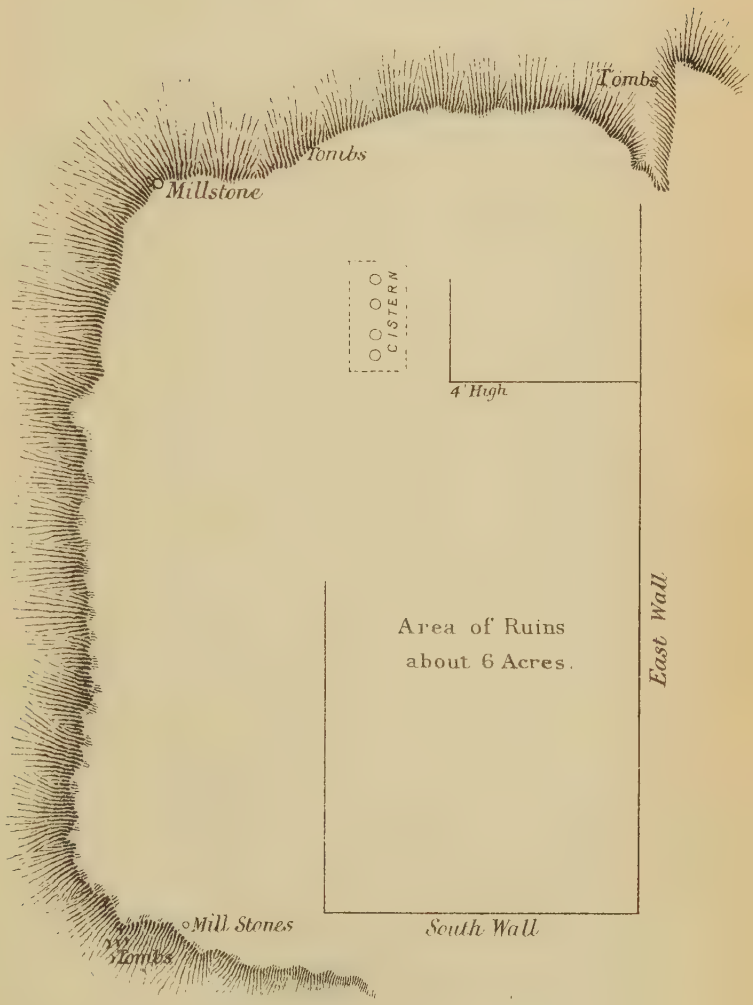
The confusion which the Crusading nomenclature has introduced into the identification of sites, is nowhere, as Captain Conder has shown, more curiously illustrated than in Haifa and its neighbourhood.

The tradition, first suggested by William of Tyre, that Porphyrion was identical with Haifa, is still firmly clung to by the monks of Carmel, and both Reland and Sepp identify the ruins in the neighbourhood of that town with Porphyrion, basing their arguments, however, upon other than Crusading tradition: the latter admitting that while one Porphyrion

may be eight miles north of Sidon at Khan Yum's, there must have been another near the point of Carmel on the authority of the Onomasticon, which places here a town called Chilzon, which he maintains is the Hebrew name for Murex, the shell which produces the purple dye, and which is found here in considerable quantities. Hence the name Porphyrion. But on analogous grounds the town might rather have occupied the site of the ruins of Haifa el Atikah, where the coast is strewn with such a profusion of fragments of porphyry carvings as are not to be found elsewhere—an hypothesis scarcely sufficient in itself to warrant the identification of a site. The fact that there was a Bishop of Porphyrion who was under the Metropolitan of Cæsarea, only adds to the difficulty, which is not elucidated by any of the itineraries of the pilgrims or ancient travellers, as none of these give the distances between Acre, Cæsarea, and the intervening towns with sufficient accuracy to enable us to identify the places they mention. Thus it happens that there are the ruins of five towns within a short distance of one another on this coast, none of which have been identified with absolute certainty. These are, first, the ruins of Haifa el Atikah, distant a mile and a half from modern Haifa, which may itself be the site of an ancient city; second, those at Tel el Semak, distant two miles from Haifa el Atikah; third, those of Kefr es Sâmir, distant two miles and a half from Tel el Semak; fourth, those of Khurbet el Keniseh, distant two miles and a half from Kefr es Sâmir; and fifth, those of Athlit, the Castra Peregrinorum of the Crusaders, distant three miles and a half from Khurbet el Keniseh. That one of these is Sycaminum, and another Calamon, is pretty certain, and the conclusion generally arrived at is, that the ruin at Tel el Semak is the former, and that at Kefr es Sâmir the latter. It was in the hope that I might find something at Tel el Semak that might throw light on the subject, that I examined the neighbourhood somewhat minutely, and in the course of my explorations stumbled upon a ruin which turned out to be Khurbet Temmaneh,[1] which Guerion vaguely mentions as being somewhere in this vicinity. Attracted by a flight of rock-cut steps near which are some tombs to the left of the road, I scrambled up the steep hill-side through the bushes for about 300 yards, where, at an elevation of 200 feet above the level of the sea, I came upon a comparatively level plateau, about 6 acres in extent, covered with the traces of an ancient town. Fragments of columns and capitals and pieces of carved marble were strewn about in profusion; the rocks in the neighbourhood were honeycombed with tombs: two of the best of these contained six loculi, each in a perfect state of preservation, the entrances to several others were closed; there were traces of rock-cut chambers, two large millstones, and the foundations of walls which may possibly have been those of a fort. This Khurbet lies due east of the mound of Tel el Semak, from which it is distant about 400 yards, and may have formed an upper town to the lower city of Sycaminum. The ruin is bounded on the east side by a wall running nearly due north and south, 112 yards in length, from which at right angles runs a wall 40 yards long, terminating in an angle where it stands to a height of 4 feet from the ground.

[1] On the map Tinâny.

KH. TEMMANEH OR TINÂNY.



Scale.

0 10 20 30 40 50 60 70 80 90 100 yards.

Here it turns north for 12 yards. It is composed of rubble from which the ashlar has been removed, and is from 3 to 4 feet in thickness ; the wall bounding the ruin on the south is 65 yards long, commencing from the south corner of the east wall, and the south wall is 70 yards long, terminating apparently near a large cistern with four circular apertures. I had myself let down into this, and found it to be hewn out of the rock, 70 feet in length, 20 feet in breadth, and 12 feet in height ; but the floor was covered with an unknown depth of *débris*. The sides had been cemented, the cement still remaining in parts in a very perfect state of preservation, and the roof was supported by three columns hewn from the living rock, 4 feet square. The annexed plan will give some idea of the ruin. I could find no traces of a wall on the north side, but I think it probable that a little excavation would lay them bare. Near the east wall I picked up a fragment of marble on which had been carved the word "Allah," and two or three other letters indicated that it was the commencement of an old Arabic inscription, though the characters were not Cufic.

I take this opportunity of adding a few notes of objects of interest which have come under my observation in the course of my rides in this neighbourhood. At Kefr Lam (Sheet 7, I *i*) the fellahin have, since the visit of the officers of the Palestine Survey, opened an ancient well, which furnishes them with a good supply of water. It is 35 feet deep, and approached by a flight of steps, partly hewn out of the solid rock and partly artificial ; the sides of the well, the mouth of which is about 30 feet square, are also partly of masonry and partly of hewn rock. In the neighbourhood are two rock-hewn chambers, or they may possibly have been cisterns ; the largest was 15 feet square, and spanned in the centre by a single stone 15 feet long and 2 feet broad by 2 deep. Cut in the rock at intervals of about 8 inches were two rows of holes, which may have been used for supporting rafters. The fellahin also pointed out to me two stone vaults, 40 feet long by 12 feet broad and 7 feet high. The roofs consisted of massive blocks of stone, which were supported in the case of each vault by five arches, each arch hewn from a single block of stone 4 feet in breadth, thus leaving a comparatively narrow interval between each arch, and forming a chamber of a very peculiar construction. At Zimmârin (Sheet 8, K *j*) the Jews, who are settled there in a colony, have in the course of their operations also brought to light a curious chamber, 10 feet by 8 feet and 10 feet deep ; on three sides it is hewn out of the living rock ; on the longest side have been cut four rows of eighteen holes, each hole being 6 inches square and about 6 inches deep at the base, but standing upwards ; on the shorter sides there are four rows of ten holes, each row being about 3 inches above the one below it. Whether these entered into the construction of the roof of the chamber or served some religious purpose for which the room may have been originally designed, I am unable to conjecture.[1] At El Makura, a

[1] The survey party came across a number of those rock-hewn chambers along the ridge running parallel to and near the coast line, having square pigeon-holes in rows of about the same dimensions; some chambers had steps leading down, others not.—G.A.

Khurbet near Ijzim (Sheet 8, J *j*) I found the largest rock-hewn cistern[1] which I have yet observed in this part of the country. It measured 98 feet long by 40 feet in width. The bottom was so full of undergrowth that it is impossible to conjecture the real depth, but it was doubtless capable of containing an abundant supply of water. Should the country ever be re-populated, many of these ancient cisterns could be utilised. I was myself fortunate enough to discover a bell-shaped cistern at Dâlieh, which only required cleaning out and re-cementing, in a position which has since enabled me to turn it to good account; in excavating near it I came upon the foundations of an old house, apparently of Byzantine times, which have since served me for the foundations of a new one, and unearthed twelve large iron rings, 3 inches in diameter, with iron staples 4 inches long attached—probably used for fastening horses, some coins of the time of Constantine, some carved cornices and drafted stones, and a great quantity of fragments of glass, stems of vases, and rims of drinking goblets, and heaps of broken pottery, while the neighbouring field is abundantly strewn with tesseræ, giving evidence that the former occupier must have been a man of means, and that more excavation may bring further evidences of it to light. In the course of my rides over Carmel I have observed erections[2] which I do not see mentioned in the Survey. The most perfect of these lies about half-way between Dâlieh and the Mahrakah, a little off the road to the left, concealed in the thick brushwood. It is a pile of stones 14 feet square by 12 feet high, the stones averaging 3 feet in length by 2 feet in breadth and 1 foot in thickness. They have been carefully cut, and laid so as to form a perfect square, but without cement. I have since come upon five or six similar erections, generally in very remote and unfrequented spots, and the natives can give me no tradition in regard to them.[3]

At Khurbet Keramis, near Umm es Zeinat (Sheet 8, K *j*), I found two underground vaults, each 20 feet long by 10 feet broad and 5 feet high; but they were much filled with rubbish, also foundations, and drafted stones. Standing in close proximity to each other were what at first appeared to be the base of four gigantic columns, as they stood 4 feet high from the ground and were about 6 feet in diameter; from the square hole in the centre of each they appear to have been the lower halves of mills.

A mile and a half, a little to the east of south, of Dâlieh er Ruhah (Sheet 8, K *k*) I found a Khurbet Umm Edd Foof أص المغوف where there were tombs, cisterns, millstones, and the usual foundations and heaps of stone.

At Rushmia, which is situated on Mount Carmel, at an elevation of about 700 feet above the sea, distant an hour's ride from Haifa, and described in the Memoirs, I am engaged with a friend in making

[1] Marked on the map Bkt = Birket.

[2] Probably old watch towers (vineyard ?), which are found on many of the spurs of Carmel; also in the wooded country to the south of Umm el Fahur. They vary in dimensions, but generally measure 12 to 15 feet square of dry stone masonry. Those in a fair state of preservation are usually found in the thickets of copse wood.—G.A. See Mr. Drake's Reports, *Quarterly Statement*, 1873, p. 31.

[3] Usually called El Muntâr (watch tower).

an excavation at the well of Elias, with a view of seeing whether the spring affords a sufficient amount of water to furnish a supply for the town of Haifa, in view of the change contemplated by the Government of moving the seat of the Mutessariflik from Acre to this place. The water enters the well through an apparently natural tunnel, but has no outlet from the well itself, which thus becomes a sort of backwater, the native tradition being that the spring is much further up, and is in fact the source of a small rivulet, which, after an underground course, reappears in the gardens below Haifa, and forms there a small lagoon. We first endeavoured to strike this stream about 20 yards below the well, down the wâdy, but, beyond finding some cut stones at a considerable depth, made no discovery. We then dug in the immediate neighbourhood of the well, and came upon the roof of an artificial tunnel; on opening this we found it completely filled with the soil, which had silted into it, and at a depth of 7 feet from the surface came upon the stone floor in which a channel had been cut for the water. As the water in the well was, however, now 4 inches lower than this channel, we have had to take it up. We followed this tunnel for 10 yards; the roof was arched and the sides built of stone, both hewn and unhewn, but without cement. Altogether, we cleared a channel 30 yards long and 8 feet deep, into which we let the water; but the operation of following up the channel, by which it reaches the well, and in which it somewhere loses a good deal of its volume, is not yet sufficiently completed to enable us to decide whether it will be worth conveying to Haifa, a distance of over three miles.

LAURENCE OLIPHANT.

BETH HABBECHEREH, OR THE CHOSEN HOUSE.

CHAPTER I.

1. IT was an affirmative command[1] to make a house for the Lord suitable for offering in it the offerings, and celebrating the feasts thereat, three times in a year, as is said, "and let them make me a Sanctuary" (Exod. xxv, 8). The Tabernacle made by Moses our master has already been described in *the Book of* the Law. It was temporary as is said "for ye are not as yet come," &c. (Deut. xii, 9).

2. After the *children of Israel* entered the *promised* land,[2] they placed the tabernacle at Gilgal for fourteen years, whilst they subdued and divided *the land*. And thence they came to Shiloh and built there a house of stones, and spread the curtains of the Tabernacle over it, and it was not roofed there. The Tabernacle of Shiloh stood 369 years, and after the death of Eli it was destroyed, and they came to Nob, and there built a Sanctuary. After the death of Samuel *this* was destroyed, and they came

[1] מצות עשה. The Rabbis enumerate 613 commandments, of which 248 are מצות עשה, *præcepta affirmantia*, and 365 מצות לא תעשה, *præcepta prohibentia*.

[2] "Three commands were given to Israel on their entrance into the land: to set up a king over them; to cut off the seed of Amalek; and to build the chosen house."—Sanhederim 20 *b*.

to Gideon and built there a Sanctuary, and from Gibeon they came to the eternal house, and the days of Nob and Gibeon were 57 years.

3. After the Sanctuary was built at Jerusalem, all the other places were unlawful for building in them a house for the Lord and offering in them offerings (Deut. xii, 11, 14). And no other was called a house for all generations, except that at Jerusalem only and on Mount Moriah,[3] of which it is said, "then David said, this is the house of the Lord God, and this is the altar of the burnt offering of Israel" (1 Chron. xxii, 1), and he said "this is my rest for ever." (Psalm cxxxii, 14.)

4. The building which Solomon built has been already described in the *book of* Kings, and the building to be built in the future, although it is written in Ezekiel, is not fully described and explained. The men of the second house (which they built in the days of Ezra) built it like the building of Solomon, and after the appearance of the things[4] explained in Ezekiel.

5. And these are the things which were fundamental in the building of the house.[5] They made in it a holy *place*, and a holy of holies, and there was in front of the holy *place* a certain place which was called the porch, and these three were called היכל, hekhal, the Temple.[6] And they made

[3] Zevachim xiv, 4. "Before the Tabernacle was erected the high places were permitted, and the priestly functions were performed by the first-born *of families*. After the erection of the Tabernacle the high places were forbidden, and the priestly functions were performed by the priests; the most holy offerings were eaten within the hangings, the less holy in all the camp of Israel. 5. When they came to Gilgal and made the high places lawful; the most holy offerings were eaten within the hangings, the less holy in any place. 6. When they came to Shiloh high places were forbidden. There was no roof *to the Tabernacle* there, but a house of stones below and curtains above. And this was the 'rest.' (Deut. xii, 9.) The most holy offerings were eaten within the hangings, and the less holy and the second tithes in any place from which *Shiloh* could be seen. 7. When they came to Nob and Gibeon, they permitted the high places; the most holy offerings were eaten within the hangings, and the less holy in all the cities of Israel. 8. And when they came to Jerusalem, high places were forbidden, and were never afterwards permitted, and this was the 'inheritance.' (Deut. xii, 9.) The most holy offerings were eaten within the hangings (*i.e.*, the wall of the court), and the less holy and the second tithes within the wall" (of Jerusalem—*Rashi*). The Gamara adds (Zev. 118 *b.*): "The Rabbis teach that the days of the Tabernacle of the congregation in the wilderness were forty years, less one; the days of the Tabernacle of the congregation at Gilgal fourteen; seven whilst they were subduing, and seven whilst they were dividing, *the land*, the days of the Tabernacle of the congregation at Nob and Gibeon fifty-seven. It remained at Shiloh three hundred and seventy years less one."

[4] Or "in some things like."

[5] *Cf.* Middoth ii, 5; iii, 1; iv, 2.

[6] היכל, Hekhal = *vaos* in its wider sense, as in Josephus, B. J. V, v, 3. It were to be wished that the precision of nomenclature here aimed at by our author had always been observed. But this is far from being the case. The

another outer boundary surrounding the temple distant from it like the hangings of the court *of the Tabernacle* which was in the wilderness, and all that was surrounded by this boundary,[7] which corresponded[8] to the court of the Tabernacle of the congregation was what was called the court, and the whole was called the Sanctuary.[9]

6. And they made vessels[10] for the Sanctuary, an altar for burnt sacrifices and other offerings, and a sloping ascent by which they went up to the altar, and its place was in front of the porch, a little[11] to the south; also a laver with its base, to sanctify[12] from it the hands and feet of the priests for the service, and its place was between the porch and the altar, a little to the south, so that it was on the left of a person entering the Sanctuary; also they made an altar for incense, and a candlestick and a table, which three were inside the holy *place*, in front of the holy of holies.

7. The candlestick *stood* on the south, to the left of a person entering, and the table on which was the shewbread to the right, and both of them on the outer side of the Holy of Holies, and the altar of incense stood between them both a little to the outside.[13] And they made within[14] the court boundaries marking the limits of Israel and of the Priests[15] and they built there houses for the other requirements of the Sanctuary, and each of these houses was called a chamber.[16]

8. When they built the Temple and the court, they built of large stones, and if they did not find stones, they built of bricks.[17] And they

Talmud repeatedly speaks of the porch and the temple אולם והיכל (Yoma 12 *a*, Megillah 26 *a*), and Maimonides himself has elsewhere distinguished between the היכל and the Holy of Holies (*infra*, vii, 22).

[7] Exodus xxxviii, 9.

[8] כעין "like the appearance of."

[9] *Cf.* Middoth ii, 3; iv, v, for the contents of thi paragraph. The concluding sentence "and the whole was called the Sanctuary," מקדש, *mikdash*, is an inference from such passages as Middoth i, 1.

[10] Pots, pans, shovels, tongs, instruments of music, &c. The word *Kelim*, כלים has a very wide signification. *Cf.* Exodus xxvii, 19.

[11] Literally "drawn to the South."

[12] To wash.

[13] Literally "the altar of incense drawn from between them both towards the outside." In Yoma, 33 *b*, it is said "we are taught that the table was on the north two cubits and a half from the wall, and the candlestick on the south two cubits and a half from the wall. The altar was between and stood in the middle drawn towards the outside," *i.e.*, towards the porch.

[14] Literally "in the midst or inside."

[15] Middoth ii, 6.

[16] לשכה *liskah*. Middoth i, 1, 5, 6; v, 4, and in very many other places in the Talmud.

[17] The opinion that bricks were employed in the construction of the Temple appears to be derived from a passage in Mechilta (מזבח אדמה, page 74, Friedmann's edition, Vienna 1870), where, commenting on Exodus xx, 25, it is argued "thou wilt make me an altar of stone" is a permission, not a duty; and what but this does it teach? that if it is desired to make an altar of stone, let it

did not cut the stones of the building in the mountain of the house, but they cut and fitted them outside, and afterwards brought them in for the building, as it is said "great stones, costly stones, *and* hewed stones, to lay the foundation of the house" (1 Kings v, 17) and, "neither hammer nor axe, nor any tool of iron was heard in the house while it was in building"[18] (1 Kings, vi, 7).

be made of stone; if of bricks, let it be made of bricks. And if this power of election was permitted in the case of the altar (which was peculiarly sacred), *à fortiori* it might be permitted in reference to everything else (כל הכלים, *every vessel*) in the Sanctuary. Yet it is to be observed that the opinion here expressed in reference to the passage "thou will make me an altar of stone" was not regarded as authoritative. (*Vide infrà*, i, 13.)

[18] Mechilta, p. 74. The rabbinical writers appear always to assume that in the building of the second temple, as in the building of the first, the stones were not cut and dressed on the spot. The great pillar lying within the Russian compound at Jerusalem, which not improbably was intended for Herod's cloisters, has its upper surface partially dressed, and the discovery of a flaw appears to have caused it to be abandomed before completion. Another pillar of about the same size, smoothed on as much of the surface as could be reached before the stone was separated from the rock, was discovered a few years ago about 200 yards south-west from the same spot, and it hence appears probable that the great stones of the later temple were dressed in the quarry. The pillar of smaller size which may be seen still joined to the rock on the north of the old road to Lifta, although cut into shape, has not been smoothed.

In Sotah, 48 *b*, is the following passage bearing upon this subject: "After the Holy House was destroyed the worm Shamir ceased," &c. (Mishna ix, 12). The Rabbis teach that it was by means of the Shamir that Solomon built the Holy House, as is said, "and the house when it was in building was built of perfect stone from the quarry" (*unbehauene Steine des Steinbruchs*—Gesenius) (1 Kings vi, 7). The words are to be interpreted literally. The words of Rabbi Judah Rabbi Nehemiah said to him. Is it possible to say so, when it has been said, all these stones were "costly stones, &c., sawed with a saw?" (1 Kings vii, 9), and if so, how are we taught to say that there "was not heard in the house the *sound of hammer*, &c., while it was in building?" (1 Kings vi, 7). Because they prepared the stones outside, and brought them in. (*Cf.* Mechilta, ch. מזבח אדמה.)

Rab said, "the words of R. Judah appear to refer to the stones of the Sanctuary, and the words of R. Nehemiah to the stones of his (Solomon's) house. And *in reference to the opinion expressed by* R. Nehemiah, for what purpose did the Shamir come? It was required for this, as we are taught, that those stones (*the stones of the breast-plate*), were not written with ink, because it is said "*like* the engravings of a signet" (Exodus xxxix, 14). And they did not engrave them with a chisel, because it is said "in their fulness" (inclosings A. V.) (Exodus xxxix, 13), but they wrote upon them with ink and showed the worm to them from the outside, and they became opened by themselves just as a fig becomes opened in the hot days, and there was no loss *of substance;* like a plain which becomes channeled in the days of the great rains without loss. The Rabbis teach that the Shamir was a creature like a barley corn, and was created in the six days of the Creation, and there was no hard thing that could stand before it. How did they preserve it? They wrapped it in a mass (literally

9. And they did not build in it any projection of wood, but either of stones, or of bricks and lime; and in all the court they made no porches (exhedræ) of wood, but either of stones or of bricks.[19]

10. And they paved the whole court with costly stones, and if a stone was dislodged, notwithstanding that it remained in its place, it was profane so long as it moved, and it was unlawful for the officiating priest to stand upon it at the time of the service until it was fixed in the earth.[20]

11. And it was a command to strengthen in the best manner possible

sponge) of wool, and put it into a leaden casket filled with barley bran." This worm is said by R. David to have been brought by an eagle from Paradise (Buxtorf. Lex. Talm. שמיר).

[19] This is founded upon Deut. xvi, 21, which by the Talmudists is held to prohibit the placing any wooden erection near the altar (Tamid 28 *b*). Two difficulties arise out of this passage, namely, 1, that there was in the south side of the court a chamber of wood (Midd. v, 4), and 2, that there was, according to Middoth, our author, and other writers, a wooden balcony surrounding the inside of the court of the women. The first is met by supposing that the chamber in the court was not constructed of wood, but was for the storing of (picked) wood (Midd. ii, 5) for the altar; and in reference to the second, it is suggested, 1, that the expression "near unto the altar of the Lord" was applicable only to that portion of the temple which was inside of the gate Nicanor, and 2, that the balconies for the women were only temporary, being put up for the rejoicings at the Feast of Tabernacles which took place in the *beth hashshaavah* which was in the court of the women. (Succah v, 1; Piske Toseph. ad Midd.) The beams of cedar wood which passed between the front of the temple and the porch, and the cedar roofs of the little pillars by the slaughtering place, were not considered to be projections. For the *exhedræ* in the court, see Tamid i, 3, where it is related that the priests and their overseer, when they passed out of Moked into the court early in the morning, divided into two companies, the one going by the *exhedra* towards the east, and the others going by the *exhedra* towards the west." The Gamara explains that these *exhedræ* were of masonry. Once in seven years, on the first day of the Feast of Tabernacles, a pulpit of wood was erected in the court of the women, from which the king read portions of the law (Sotah vii, 8).

[20] Zevachim ii, 1, 24 *a*. A priest (whilst receiving the blood) might not sit nor stand upon any vessel, or upon a beast, or upon the foot of a fellow-priest. If he chose to stand upon one leg whilst performing his service he was at liberty to do so, but not when he had no service to perform. In connection with the stones of the pavement the student of the Mishnas will remember the story in Shekalim vi, 2: "It happened that as a priest was engaged in his duties he noticed that *one part of* the pavement was changed in appearance from the rest. He came and told his companions, but before he could finish the account he died, and they knew that there the ark was certainly hidden." This priest had a blemish, and was employed in picking wood for the altar (Midd. ii, 5), and it was in consequence of this tradition that the families of Gamaliel and Hananiah were accustomed to make obeisance towards the chamber of wood in the court of the women.

the building, and to raise it as high as the means of the congregation permitted, as is said (Ezra, ix, 9) "to set up the house of our God." And they adorned and beautified it according to their power, and if they were able to overlay it with gold[21] and to magnify the work of it, lo, that was a good deed![22]

12. They did not build the Sanctuary by night, as is said (Numb. ix, 15), "on the day that the tabernacle was reared up," by day they reared *it* up, not by night.[23] And they were employed in building from the rising of the morning until the stars came out.[24] And all were obliged to assist in the building, both by their own individual exertions and by their means, men and women, as in the Sanctuary in the wilderness.[25] They did not intermit the instruction of children in the schools for the building,[26] nor did the building of the Sanctuary annul a feast day.

13. They made the altar of stone[27] masonry only, and that which is said in the Law, "an altar of earth thou shalt make unto me" (Exod. xx, 24), *means* that it should be joined to the earth, that they should not build it either upon arches, or over cavities,[28] and that which is said, "*if thou wilt make me* an altar of stone" (Exod. xx, 25), tradition teaches that this is not a permission but an obligation.[29]

[21] Solomon overlaid the whole house, the altar, the doors, the cherubim, and the floor of the house with gold. (1 Kings vi, 22, 28, 30, 32.)

[22] מצוה. Literally "a *commandment*," a *good deed prescribed by the law.*

[23] Shevuoth 15 *b*.

[24] Nehemiah iv, 21.

[25] Exodus xxxv, 22, 25; xxxvi, 8.

[26] Shabbath 119 *b*. "They did not intermit the instruction of children in the schools, even for the building of the Sanctuary."

Shevuoth 15 *b*. The work of building the Sanctuary being of less importance than keeping a feast-day was intermitted until the feast-day was over.

[27] Some copies wrongly read here אבנים גזית, *hewn stones.*

[28] Mechilta 73 *a*. Rabbi Ishmael said, "an altar of earth thou shalt make unto me—an altar joined to the earth thou shalt make unto me, thou shalt not build it upon arches or upon pillars." The compilers of the Gamara adopted this opinion (Zevachim 58 *a*, and 61 *b*), and Maimonides has followed the Gamara.

[29] Mechilta 73 *b*. "Rabbi Ishmael said every 'if' in the Law is a permission, not an obligation, except three:—

1. Leviticus ii, 14. "And if thou offer an offering of thy first-fruits," this is an obligation. "If thou sayest is it obligation or only a permission?" we are taught to say "thou shalt offer for the meat-offering of thy first-fruits" (Exod. ii, 14 *b*), which is an obligation, not a permission.

2. Exodus xxii, 25. "If thou lend money to any of my people," &c., this is an obligation, and if thou sayest "is it an obligation or only a permission?" we are taught to say "thou shalt surely lend him" (Deut. xv, 8), which is an obligation, not a permission.

3. Exodus xx, 25. "If thou wilt make me an altar of stone;" this is an obligation, and if thou sayest "is it an obligation or only a permission?" we are taught to say "thou shalt build of whole stones" (Deut. xxvii, 6), which is an obligation, not a permission. (*Cf.* note 1, page 29.)

14. Every stone which had a flaw in it sufficient to arrest the finger nail, like the knife for slaughtering,[30] lo, that was unlawful for the sloping ascent and for the altar,[31] as is said "thou shalt build the altar of the Lord thy God of whole stones" (Deut. xxvii, 6). And whence did they bring the stones of the altar? From virgin earth,[32] they dug until they came to a place in which it was evident there had been no work or building, and they brought out the stones from it, or from the great sea,[33] and built with them. And the stones of the temple, and of the courts were also perfect stones.[34]

[30] Few Jewish observances have been held to be of greater importance than the use of a very sharp knife for slaughtering. Whoever slaughtered without first causing his knife to be examined before a rabbi was liable to excommunication (Cholin 18 *a*). One of several methods of examining the knife is by drawing its edge over the finger nail (*ibid.* 17 *b*, where the subject is discussed at length). "And what constituted a flaw in the altar?" As much *unevenness of surface* as arrested the finger-nail. They repeat, what constituted a flaw in the altar? R. Simeon ben Jochai said as much as a handbreadth. R. Eleazer ben Jacob said as much as an olive. There is here no contradiction. This (the opinions of R. Simeon and R. Jacob) refers to the lime, and that (the opinion first expressed) to the stones (Cholin 18 *a*).

[31] That the same rule applied to the sloping ascent as to the altar appears from Middoth iii, 4.

[32] "The virginity of the earth," מן בתולת הקרקע, Middoth iii, 4.

[33] In the Tosefoth to Cholin (18 *a*) it is enquired how they built the altar of smooth stones since they were not permitted to use an iron instrument for smoothing them, and the *shamir* could not make them so smooth that the finger-nail would not be arrested in passing over them, and says that the meaning of the passage in Zevachim (54 *a*) is that they built of small stones in which was no flaw, like the stones of a torrent, נחל. The notion that stones were brought from "the great sea" appears to depend upon the interpretation of the word מפולמות (Zevachim 54 *a*), which is from a root signifying *fresh, moist.* "Bohu, בהו (A.V., *void*, Genesis i, 2), means those recent stones which were sunk in the abyss, and from which the waters flowed" (Chagigah 12 *a*); and the gloss says, מפולמות (the word in question), has the meaning of moist or recent, ליחלוח.

[34] Maimonides does not mean here by the expression אבנים שלימות "perfect stones," that the stones of the temple and courts were not hewn, but that they were highly finished. (*Cf.* Tamid 26 *b*, and the gloss; also Sotah 48 *b*, quoted above, and Mechilta 74.)

"He that did not see the Sanctuary, with its buildings, never saw beautiful building. Which building was it? Abai said, and some say that R. Khasdai *said* that was the building of Herod. Of what did he build it? Rabba said באבנים שישא ומרמרא, of different kinds of marble. Some say באבני שישא כוחלי ומרמרא of coloured marble and white marble. One lip projected and one lip receded in order that it might receive the lime (plaster). He thought to overlay it with gold, *but* the Rabbis said to him let it be, it is very beautiful so, for its appearance is like the waves of the sea" (Succah 51 *b*; Baba Bathra 4 *a*). The gloss of Rashi adds "שישא, *shisha*, coloured marble, neither white nor

15. Stones of the temple and courts which became broken or cut were unlawful, and they could not be redeemed, but where laid by and preserved.[35] Every stone which iron had touched, even though it was not cut, became unlawful for the building of the altar, and the building of the sloping ascent,[36] as is said "for if thou lift up thy tool upon it thou hast polluted it" (Exod. xx, 25), and whoever should build a stone which iron had touched into the altar was beaten, as is said "thou shalt not build it of hewn stone" (Exod. xx, 25); and whoever built in a stone with a flaw transgressed an affirmative command.[37]

16. A stone which became broken or touched by iron after being built into the altar or the sloping ascent was unlawful, and the rest were lawful. They whitened the altar twice a year at Passover, and at the Feast of Tabernacles. And when they whitened it, they whitened it with a cloth, and not with an iron trowel, lest it should touch a stone and defile.[38]

17. They did not make stairs to the altar, as is said "neither shalt thou go up by steps unto mine altar" (Exod. xx, 26), but they built a kind of mound on the south of the altar diminishing and descending from the top of the altar to the ground, and this is what was called *Kebesh*,[39] and whoever ascended by steps to the altar was beaten. And whoever should pull down a stone from the altar or from any part of the temple, or from between the porch and the altar with the view of injuring it was beaten, as is said "Ye shall overthrow their altars," &c., and "ye shall not do so unto the Lord your God"[40] (Deut. xii, 3, 4).

black, but a kind of yellow, ירוק, called in the barbarian tongue *bis.* מרמרא, *marmora*, white marble. כוחלא, *Kochala*, marble coloured, as if stained. "One lip projected," one row of stones went in and one went out. "Like the waves of the sea," because the stones differed in appearance one from another, and the eye in contemplating them moved to and fro, and they appeared like those waves of the sea which are moved and agitated."

[35] That is, they could not be sold or used for any other purpose (Tosefta Megillah, ch. 2).

[36] Middoth iii, 4.

[37] Deuteronomy xxvii, 6. "Thou shalt build the altar of the Lord thy God of whole stones."

[38] Middoth iii, 4. It happened once at the Feast of Tabernacles that the officiating priest poured the water upon his leg, and the people pelted him with their lemons ("and with stones," gloss) and caused a flaw in the horn of the altar, which they stopped up with a mass of salt (Succah 48 *b*; Zevach. 62 *a*).

[39] Middoth iii, 4; Zevachim 62 *b*. "The Kebesh was on the south of the altar."

[40] Sifre, page 87, Friedmann's edition, Vienna, 1864. Whence *do we learn* that to take away a stone from the Temple, or from the altar, or from the courts is a transgression of a negative commandment? The doctrine is to say "ye shall overthrow their altars," and "ye shall not do so unto the Lord your God" (Deut. xii, 3, 4). Why Maimonides has here mentioned the space between the porch and the altar instead of the courts, does not appear. In the corresponding passage in his treatise, יסודי התורה, 6, 7, he has "from the altar, or from the Temple, or from the rest of the court."

18. The candlestick and its vessels, the table *of shewbread* and its vessels, and the altar of incense and all the vessels of service, they made of metal only. And if they were made of wood, or bone, or stone, or of glass, they were unlawful.[41]

19. If the congregation קהל was poor, they made them even of tin, and if they became rich, they made them of gold, even the basins, and the flesh hooks, and the shovels of the altar of burnt-offering. And if the community had the power, they made the measures of gold. Even the gates of the court they covered with gold if they were able.[42]

20. All the vessels *of the Sanctuary* were made expressly for sacred use, and such as were made for ordinary purposes could not be used for sacred purposes. Sacred vessels which had not yet been used for sacred purposes might be used for ordinary purposes, but after they had been used for sacred purposes, it was unlawful to use them for ordinary purposes. Stones and beams cut for a synagogue could not be employed for a building in the mountain of the house.[43]

CHAPTER II.

1. The position of the altar was determined with great care,[1] nor did they ever change it from its place, as is said, "this *is* the altar of the burnt offering for Israel" (1 Chron. xxii, 1). And in the sanctuary Isaak our father was bound, as is said, "and get thee into the land of Moriah" (Gen. xxii, 2), and it is said in the Chronicles (2 iii, 1), "then Solomon began to build the house of the Lord at Jerusalem in Mount Moriah, where the Lord appeared unto David his father, in the place that David had prepared in the threshing floor of Ornan the Jebusite."

2. And it is a constant tradition[2] that the place in which David and Solomon built the altar in the threshing-floor of Araunah is the place in which Abraham built the altar and bound upon it Isaac. And it is the place in which Noah built when he went out of the ark, and

[41] The question of what material it was lawful to make the candlestick is discussed in Menachoth 28 *b*. The prevailing opinion of the Rabbis was that if made of wood, or of bone, or of glass, it was unlawful.

[42] "Because they saw the flesh-hooks were of iron they covered them with tin; when they became rich they made them of silver; and when they again became rich they made them of gold" (Menachoth 28 *b*; Avodah Zarah 43 *a*; Rosh Hashshanah 24 *b*). "Monbaz (Monobasus) the king made all the handles of the vessels of the Day of Atonement of gold, and Helena, his mother, made the candlestick of gold which was at the door of the temple" (Yoma iii, 10). That the gates of the court were covered with gold is related in Middoth ii, 3.

[43] The authority for this paragraph is Tosefta Megillah c, 2. But in the Tosefta there is no mention of stones, &c., prepared for a synagogue; the passage runs, "stones and beams cut for an ordinary *building*," &c.

[1] "Three prophets came up with them from the captivity . . . . one testified to them respecting the place of the altar" (Zevachim 62 *a*).

[2] מסורת ביד הכל. A tradition by the hand of all.

it is the altar upon which Cain and Abel offered, and there [כף] the first Adam offered an offering[3] after he was created, and from there he was created. The wise men have said that Adam was created from the place of his redemption.[4]

3. The measures of the altar were carefully studied and its form was known traditionally. And the altar which the sons of the captivity built they made like the appearance of the altar which is to be built in the future, and nothing is to be added to its measure nor diminished from it![5]

4. And three prophets came up with them from the captivity; one testified to them respecting the place of the altar, one testified to them respecting its measures, and one testified to them that they should offer upon that altar all the offerings, even though there was no house there.[6]

5. The altar which Moses made, and *that* which Solomon made, and *that* which the children of the captivity made, and *that* which is to be made in the future all are ten cubits high, each one of them, and that which is written in the Law, "and the height thereof *shall be* three

[3] Pirke R. Eliezer, ch. 31; Yalkut Simeon, וירא אליו, 101. The latter does not mention Adam but only Cain, Abel, and Noah.

[4] "And the Lord God formed man of the dust of the ground" (Genesis ii, 7). "Rabbi Judah ben Pazy said the Holy One, blessed be He, took one spoonful, מלא תרווד אחד, from the place of the altar and created from it the first Adam" (Jerus. Nazir 56 *a*, 2 (19 *a*)). תרווד has been used as synonymous with לוז, the famous incorruptible bone from which the body is to be rehabilitated at the Resurrection (Buxtorf Lex. Talm. 2646).

> "The learned Rabbins of the Jews
> Write there's a bone, which they call *leuz*,
> I' th' rump of man, of such a virtue,
> No force in nature can do hurt to;
> And therefore at the last great day,
> All th' other members shall, they say,
> Spring out of this, as from a seed
> All sorts of vegetals proceed;
> From whence the learned sons of art
> Os sacrum justly stile that part."—*Hudibras*, iii, 2.

[5] *Cf.* Menachoth 97 and 98.

[6] Zevachim 62 *a*. "Three prophets came up with them from the captivity; one who testified to them respecting the altar, and one who testified to them respecting the place of the altar, and one who testified to them that they should offer *offerings* even though there was no house . . . Rabbi Eliezer ben Yacob said three prophets came up with them from the captivity, one who testified to them respecting the altar and the place of the altar, and one who testified to them that they should offer *offerings*, even though there was no house, and one who testified to them respecting the law, that it should be written in the Assyrian character [*i.e.* square Hebrew]." These prophets were Haggai, Zechariah, and Malachi (Rashi).

cubits" (Exod. xxvii, 1), *refers to* the place of the pile [fire] only.[7] And the altar which the children of the captivity made, and also that which is to be built in the future, the measure of its length and of its breadth *is* two and thirty cubits by two and thirty cubits.[8]

6. Of the ten cubits in the height of the altar some were of five handbreadths and some of six handbreadths, and all the rest of the cubits of the building were of six handbreadths, and the height of the whole altar was fifty-eight handbreadths.[9]

7. And thus was its measure and its form. It rose five handbreadths and receded five; this was the foundation. The breadth was now thirty

[7] Zevachim 59 *b*. The doctrine is that the words "and three cubits the height thereof" [Exod. xxxviii, 1], are to be taken literally. The words of Rabbi Judah. Rabbi Jose said "it is said here 'foursquare,' and it is said there 'foursquare' [Exod. xxxvii, 25, in reference to the altar of incense], as there its height was twice its length, so here twice its length." Rabbi Judah said to him, "and is it not said 'and the court an hundred cubits' [Exod. xxvii, 18; xxxviii, 9], and 'the height five cubits,' &c. [Exod. xxxviii, 18]. Possibly the priest standing upon the top of the altar performing his service all the people could see him from without." Rabbi Jose said to him, "and is it not said 'and the hangings of the court, and the curtain of the door of the court, which is by the tabernacle and by the altar' [Numb. iii, 26], as the tabernacle *was* ten cubits [Exod. xxvi, 16], so also the altar was ten cubits, and it is said 'the hangings of one side fifteen cubits' (Exod. xxvii, 14), and what is the meaning of what we are taught to say 'five cubits?' from the border of the altar upward; and what is the meaning of what we are taught to say 'and three cubits its height?' from the border of the circuit סובב upward." Rashi adds this comment, "from the border of the altar upward: upward from the altar its height was five cubits. From the border of the circuit upward: to the place of the horns [three cubits] and downward from it six cubits, and the height of the horn a cubit," which make up the ten. For the height of Solomon's "altar of brass" see 2 Chronicles iv, 1; for that of the altar to be built in the future, Ezekiel xliii, 14, 15.

[8] Middoth iii, 1. In Ezekiel xliii, 16, it is said "and the altar *shall be* twelve cubits long, twelve broad, square in the four squares thereof," and the Talmudists in reference to this passage say "it might be that it was only twelve by twelve, but when he said 'in the four squares thereof' it is understood that from the middle he measured twelve cubits to each side." (Menachoth 97 *b*; Zevachim 59 *b*; *cf.* Lightfoot 1131). This measurement refers to the upper part of the altar [אראיל, Ariel], and if correct, the lower part, or foundation, would of course be of the dimensions given in the text, namely thirty-two cubits by thirty-two.

[9] Menachoth 97 *a*. "It is taught there (Kelim xvii, 9), that Rabbi Meyer said all the cubits of the Sanctuary were medium cubits, except those of the golden altar, and the horn, and the circuit, and the foundation. Rabbi Judah said the cubit of the building was six handbreadths, and that of the vessels five." Rashi explains that the horn, circuit, and foundation are those of the altar of burnt-offering, and that the medium cubit was of six handbreadths. The question of the number of handbreadths in the various parts of the altar is then discussed at length. "The altar, how many *handbreadths* had it? Fifty-eight" (*ibid.* 98 *a*). The handbreadth was four fingerbreadths.

cubits and two handbreadths by thirty cubits and two handbreadths. It rose thirty handbreadths and receded five handbreadths, this was the circuit. It rose eighteen handbreadths, this was the place of the pile. Its breadth was now twenty-eight cubits and four handbreadths by twenty-eight cubits and four handbreadths.[10] It rose eighteen handbreadths, and there receded at the corner of the eighteen[11] *handbreadths* a square hollow structure at each of the four corners,[12] and the place of the horns was a cubit on this *side* and a cubit on that side all round, and also the place of the feet of the priests a cubit all round, so that the breadth of the place of the pile *was* twenty-four cubits and four handbreadths by twenty-four cubits and four handbreadths.

8. The height of each horn was five handbreadths, and the square of each horn a cubit by a cubit, and the four horns were hollow within,[13] and the height of the place of the pile was eighteen handbreadths, so that half the height of the altar from the end סוף of the circuit downward[14] was twenty-nine handbreadths.[15]

9. A red line encircled the middle of the altar (six handbreadths below the end of the circuit) to divide between the upper and the lower bloods,[16] and its height from the earth to the place of the pile was nine cubits less a handbreadth.[17]

[10] Menachoth 97 *b*; *cf.* Midd. iii, 1. The difference between the measurements given in the Gemara of Menachoth and those given in Middoth arises from the difference in the length of the cubits. The compilers of the Gamara appear to have held that the measurements of Middoth were not intended to be minutely accurate.

[11] From the circuit upwards to the place of the pile being three cubits, and all the cubits of the height except those of the foundation and horn being cubits of six handbreadths, it follows that from the circuit to the place of the pile was eighteen handbreadths.

[12] Zevachim 54 *b*.

[13] Zevachim 54 *b*.

[14] The circuit seems to have been reckoned as being one cubit of five handbreadths broad and one cubit of six handbreadths high, and hence the expression "from the end of the circuit downward."

[15] Menachoth 98 *a*. "The middle of the altar, how many *handbreadths* was it *high?* Twenty-nine. From the horns to the circuit, how many *handbreadths?* Twenty-three. How many less than to the middle of the altar? Six. Hence in Zevachim 65 *a*, and Menachoth 97 *b* and 98 *a* it is said that if the priest standing upon the circuit sprinkled the (lower) blood one cubit below his feet it was lawful.

[16] Middoth iii, 1; Menachoth 97 *b*. "*The blood* of a sin offering of a bird was sprinkled below, and that of a sin offering of a beast above. *The blood of* a burnt offering of a bird was sprinkled above, and that of a burnt offering of a beast below." (Kinim i, 1; *cf.* Zevach. ii, 1; vi, 2; and vii, 2.) In Zevachim 10 *b* and 53 *a*, it is said "the upper blood was put above the red line, the lower blood below the red line." Rabbi Eleazer, son of Rabbi Simeon, held that the blood of a sin offering of a beast might be put only on the body of the horn or corner, על גופה של קרן.

[17] The height of the altar from the ground to the pile was eight cubits of six

10. The foundation of the altar did not surround its four sides like the circuit, but the foundation extended along the whole of the north and west sides, and took up on the south one cubit, and on the east one cubit, and the south-eastern corner had no foundation.[18]

handbreadths each, and one cubit (the lower) of five handbreadths, so that it fell one handbreadth short of nine medium cubits. The tenth cubit was the horn.

[18] "And the foundation extended all along on the north and all along on the west *sides of the altar*, and took up on the south one cubit and on the east one cubit" (Midd. iii, 1). "And there was no foundation to the south-eastern corner. What was the reason? Rabbi Eleazer said because it was not in the portion of the ravener [*i.e.*, Benjamin: "Benjamin shall ravin as a wolf," Gen. xlix, 27], as said Rab Samuel son of Rab Isaak, the altar took up of the portion of Judah a cubit. Rabbi Levi son of Khama said, Rabbi Khama son of Rabbi Khaninah said, a strip [רצוע a strap] went out from the portion of Judah and entered the portion of Benjamin, and Benjamin the righteous was grieved thereat, every day desiring to take it, as is said "he fretted thereat every day" (Deut. xxxiii, 12; A.V. "*the Lord* shall cover him all the day long") wherefore Benjamin the righteous was judged worthy to become the dwelling-place of the Holy One, blessed be He, as is said "and he shall dwell between his shoulders" (Deut. xxxiii, 12). (Zevach. 53 *b*, 118 *b*; Yoma 12 *a*; Megillah 26 *a*.) "What was in the portion of Judah? The mountain of the house, the chambers, and the courts. What was in the portion of Benjamin? The porch, the Temple, and the Holy of Holies, and a strip went out," &c. (Yoma and Megillah, *loc. cit.*) Rashi explains (Zevach. 53 *b*) that the eastern part of the mountain of the house, including the entrance, is here meant, that the chambers were those in the *chel*, and that all the court of the women, and the twenty-two cubits of the place for the tread of the priests and of Israel were called the courts. "Thus," he continues, "the portion of Judah was on the east of the altar and by its side, and the altar took up of his portion a cubit on the east. With the exception of the cubit of the north-eastern corner, all *this side* was in the portion of Judah, which cubit was distant from the corner a cubit. And the strip went out at the south of the altar and entered the portion of Benjamin, for from the place of the tread *of the priests* and upward was the portion of Benjamin at the south of the altar, and the altar took up of it a cubit, and this was the cubit, שהיא כניסת היסיד ראוי להיות בה, in which would have been the receding of the foundation had there been a foundation there, as Mar said (Midd. iii, 1), 'it ascended a cubit and receded a cubit, this was the foundation.'" Some confusion has arisen in reference to this curious point in consequence of the passage in Middoth iii, 1, ואוכל בדרם אמה, having been translated "but on the south it wanted one cubit, and on the east one cubit" (Lightfoot 1131), instead of "on the south it took up (or included) one cubit," &c. Rashi (Zevach. 54 *a*) says, "at the south-eastern corner it [*i.e.*, the foundation] extended along the eastern side a cubit and no more," and again, in allusion to the projection of the sloping ascent towards the foundation on the south, "towards the place where the receding *of the foundation* was adapted to be, but it was not there." Another note of Rashi's may be added here, "they made a kind of small projection opposite that (the south-eastern) corner to receive the blood of the burnt

11. At the south-western corner were two apertures, like two small nostrils, and these are what were called *sheteen*, שיתין, canals, and by them the bloods descended and became mixed at that corner in the cesspool, and went out to the Valley of Kedron.[19]

offerings of birds, that it might not fall upon the ground, and this was called קיר המזבח, the side of the altar (Levit. v, 9), but it was not called the foundation." This side of the altar is mentioned in Menachoth 98 *b* and Zevachim 65 *a* (*see* the note of Bartenora on Kinim i, 1). The space between horn and horn is called by the Talmudists כרכוב, *Kirkoob*. The Gemara, in Zevachim 62 *a*, enquires "what was the *Kirkoob* [A.V. "compass," Exod. xxvii, 5, xxxviii, 4]? Rabbi said it was the ornamented band, כיור. Rabbi Jose, son of Rabbi Judah, said it was the circuit, סובב . . . . What was the *Kirkoob?* Between horn and horn, the place of the path for the feet of the priests a cubit, because the priests were accustomed to go between horn and horn, therefore it is said the place of the path for the feet of the priests a cubit (Middoth iii, 1), and it is written "a brazen grate of network under the compass thereof beneath unto the midst of it" (Exod. xxxviii, 4). Rab Nachman bar Isaak said there were two, one for ornament, and one for the priests that they should not slip off." The gloss of Rashi explains that upon the top of the altar there was "a kind of deep channel, חרוץ עמוק, between the place of the pile and the edge of the altar all round and surrounding the place of the pile, and the breadth of the channel was two cubits, one cubit that part which was between the horns, and one cubit that which formed the path *for the priests*," and a few lines above this passage he says "and there was a slight eminence around it at the edge of the altar." In reference to the network of brass, the same commentator says "the grate of the network of brass which they put under the compass *of the altar* below as far as its middle surrounded the altar from its middle upward. It was clothed and as it were surrounded with a grating which was made with many holes, נקבים נקבים, like a sieve or fishing net, and it reached upward as far as to below the compass *Kirkoob*" . . . . . There were two surroundings to the altar which Moses made, one for ornament, and one for the priests that they should not slip off. *The latter extended* round the side, קיר, from the point where it was six cubits high [*i.e.*, the circuit] . . . . That for ornament was the "circuit," סובב, and the "ornamented band," כיוק, about which Rabbi and R. Jose bar Jehudah disputed, and below that circuit they put the grating, and its breadth reached downward to the middle of the altar, and it was a sign to distinguish between the upper and the lower bloods, as is said in Zevachim 53 *a* . . . . "And one for the priests that they should not slip off;" "and above on the top of the altar the depression surrounded it like a kind of depressed channel, a slight thing the edge of which might form a little parapet so that the priests should not slip." In reference to the statement that the priests could go between horn and horn he remarks, "the true path for the feet of the priests was inside the space between horn and horn, between the horn and the pile."

[19] Middoth iii, 2; *cf.* Yoma v, 6, and Meilah iii, 3. These holes were distinct from the two basins or funnels of silver or lime each with a perforated nozzle for the drink offerings. These latter appear to have been on the south-western part of the altar, since the priest went up by the sloping ascent and

12. Below in the pavement at that corner was a place a cubit by a cubit, and a slab of marble with a ring fixed to it, by which they went down to the canal and cleansed it.[20]

13. And a sloping ascent[21] was built to the south of the altar, its length thirty-two cubits by a breadth of sixteen cubits, and it took up upon the ground thirty cubits by the side of the altar, and there was an extension from it a cubit over the foundation, and a cubit over the circuit,[22] and a small space separated between the sloping ascent and the altar sufficient for the pieces of the sacrifices to be put upon the altar by throwing.[23] And the height of the sloping ascent was nine cubits less a sixth to opposite the pile.[24]

14. And two small inclines proceeded from it by which they went to the foundation and the circuit, and they were separated from the altar

turned to the left to reach them. The western one was for the water, the eastern one for the wine, and the latter had a larger hole than the other because the wine being thicker than the water took longer to run through. It is uncertain whether they were of silver or of lime blackened to look like silver. The libamina poured into these vessels ran down upon "the roof of the altar, and thence through a hole in the altar to the canals of the altar which were hollow and very deep" (Succah iv, 9, and 48 *b*; *cf.* Bartenora *in loc.*; and also Midd. iii, 2), where the hole in the altar is said to have been four cubits from its southern side, and the cavity beneath also to have extended thus far.

[20] Middoth iii, 3; *cf.* Meilah iii, 3. שיתין, *shitin*, seems to have been the upper and smaller canal, or receptacle, and אמה, *amah*, a larger and lower cavity, whence issued the sewer, a cubit square, through which the water of the court and the blood ran down to the Kidron valley (*cf.* R. Shemaiah in Middoth iii, 2). It does not appear they went into the אמה, or lower cavity, to cleanse it. This seems to have been always sufficiently flushed by the water of the court.

[21] "Thou shalt not go up by steps unto mine altar" (Exod. xx, 20): hence they said let a sloping ascent be made to the altar (Mechilta, מזבח אדמה). For the measurements of the sloping ascent see Midd. iii, 3; Zevach. 62 *b*.

[22] *Cf.* Midd. v, 2, where it is said "the sloping ascent and the altar measured sixty-two" cubits (upon the ground). The altar was thirty-two cubits in length, and the sloping ascent therefore only thirty at its base. The remaining two cubits were those of the part which projected forward towards the altar over the foundation and the circuit, and, as Rashi expresses it, "were swallowed up in the thirty-two cubits of the altar" (Zevach. 54 *a*, 62 *b*).

[23] It was required that the pieces of the burnt offerings should be thrown upon the altar, "as the blood was put upon the altar by throwing, זריקה, so also the flesh by throwing." (Zevach. 62 *b*; *cf.* note on the signification of the word זרק in "The Speaker's Commentary," introduction to Leviticus.) Hence a partition space was necessary between the ascent and the altar itself (Zevach. 62 *b*), across which the priest standing upon the ascent might throw the pieces (*cf.* Tamid vii, 3).

[24] *Vide supra*, 9. The sixth of a medium cubit was a handbreadth, and it was wanting in the height of the pile because the foundation was only a cubit of five handbreadths high.

by the thickness of a thread.[25] And there was a cavity, a cubit by a cubit, on the west of the sloping ascent, and it was called רבובה, *rebubah*, and in it they placed birds found unfit for the sin offering,[26] until they became decomposed, and were taken out to the place of burning.[27]

15. And there were two tables on the west of the sloping ascent, one of marble upon which they placed the pieces of the sacrifices, and one of silver, upon which they placed the vessels of service.[28]

16. When they built the altar they built it entirely solid, like a kind of pillar, and they made no cavity whatever in it, but brought perfect stones, large and small, and brought lime and pitch and lead, and moistened it, and poured it into a large frame of the measure of the altar, and built and raised it. And at the south-eastern corner they put a frame [גוף, *body*] of wood or stone, of the measure of the foundation, into the midst of the building, and likewise they put *a frame* into the middle of each horn until they finished the building, and the frames which were in the midst of the building took away so much as to leave the south-eastern corner without foundation, and the horns remained hollow.[29]

17. The four horns of the altar, and its foundation, and its square, were essential;[30] and every altar which had not horn, foundation, sloping ascent, and square, lo, that was unlawful, because these four were

[25] Zevach. 62 *b*. One of these inclines was on the east and led to the circuit, and the other on the west leading to the foundation. "A burnt offering of birds, how was it made? He went up by the sloping ascent, turned to the circuit and came to the south-eastern horn" (*ib*. vi, 5). Rashi upon this point says "that by which they went to the circuit proceeded from the eastern side of the sloping ascent to the right . . . . and that which led to the foundation proceeded from the west of the sloping ascent" (*ib*. 62 *b*). The slope of these small inclines was one in three, that of the large sloping ascent to the altar "one cubit in three cubits and a half and a fingerbreadth and a third of a fingerbreadth" (*ib*. 63 *a*, and the gloss). The large ascent was made with a gentler slope in order that the priests carrying the heavy pieces of the sacrifices might go up more easily. It was the custom to strew it with salt in rainy weather in order to render it less slippery (Grubin x, 14, and 104 *a*).

[26] Middoth iii, 3.

[27] "Rabbi Ishmael son of Rabbi Johanan ben Baruka said there was a hollow place there to the west of the sloping ascent, and it was called רבוכה, *rabuchah*, and there they threw the defiled of the sin offerings of birds until they became decomposed and were carried out to the place of burning" (Tosefta Korbanoth 7). Some read נבובה, *hollow*, for רבובה. The *rabubah* was in the ascent itself. The dimensions given were those of the opening; the size of the cavity is not known, but it is believed to have been large (*cf*. Aruch and Bartenora, and Tosef. Yom Tov to Midd. iii, 3).

[28] Shekalim vi, 4. The vessels were those ninety-three of silver and gold which were brought out of the chamber of vessels at the commencement of the morning sacrifice (*cf*. Tamid iii, 4, and Bartenora on the passage in Shekalim).

[29] Zevachim, 54 *a*, *b*.

[30] מעכבין, *delaying*, because the altar could not be considered as complete until they were made.

essential, but the measure of its length, and the measure of its breadth, and the measure of its height were not essential, and that which was not less than a cubit by a cubit and three cubits high, *was* like the measure of the place of the pile of the altar in the wilderness.[31]

18. An altar which had a flaw in its masonry, if the flaw in its masonry was a handbreadth, it was unlawful, if less than a handbreadth, lawful, provided that in the remainder there was no stone with a flaw in it.[32]

CHAPTER III.

1. The form of the candlestick is explained in the Law. There were four bowls, and two knops, and two flowers in the shaft of the candlestick, as it is said (Exodus xxv, 34) "and in the candlestick four bowls, made like unto almonds *with* their knops and their flowers." And there was yet a third flower joined to the shaft of the candlestick, as it is said (Numbers viii, 4) "unto the shaft thereof, unto the flowers thereof."

2. And it had three feet, and there were three other knops to the shaft of the candlestick, and from them the six branches issued, three on this side, and three on that side, and upon each of these branches were three bowls, and a knop and a flower, and all were shaped like almonds in their structure.

3. Thus all the bowls were twenty-two, and the flowers nine, and the knops eleven. And all of these delayed the one the other,[1] and if even one of the forty-two was wanting it delayed the whole.[2]

4. To what do these words refer? To the case in which they made the candlestick of gold; but when it was of other kinds of metal they did not make for it bowls, knops, and flowers. And the candlestick which is to come will be all of gold one talent with its lamps; and it will be all of beaten work from the mass. And of other metals they did not prescribe the weight.[3] And if it was hollow it was lawful.

5. And they never made it of old materials whether it was of gold or of other kinds of metal.[4]

6. The tongs and the snuff dishes and oil vessels were not included in the talent, for lo, it is said of the candlestick "pure gold" (Exod. xxv, 31), and again it says, and the tongs thereof, and the snuff dishes thereof "pure

[31] "Rab Khama bar Goreah said the גזירין pieces of wood which Moses made *for the pile* were a cubit long and a cubit broad," and this was regarded as the measure of the מערכה pile, or fire (Zevach. 62 *a*, *b*).

[32] Cholin 18 *a*. "How much constitutes a flaw in the altar? As much as will arrest the finger-nail. They repeat, how much constitutes a flaw in the altar? Rabbi Simeon ben Yochai said a handbreadth. R. Eleazer ben Yacob said as much as an olive. There is no contradiction, the one refers to the lime, the other to the stones."

[1] Menachoth 28 *a*, *b*.

[2] Tosefta Menachoth 6.

[3] Menachoth 28 *a*, *b*.

[4] Menachoth 28 *a*.

gold" (*ib.* 38); and it is not said its lamps pure gold, because the lamps were fixed to the candlestick and were included in the talent.[5]

7. The seven branches of the candlestick hindered the one the other, and its seven lamps hindered the one the other, whether[6] they were of gold or of another kind of metal. And all the lamps were fixed to the branches.[7]

8. All the six lamps which were fixed to the six branches which issued from the candlestick had their faces towards the middle lamp, which *was* upon the shaft of the candlestick, and that middle lamp had its face towards כנגד the Holy of Holies, and it is that which was called the western lamp.[8]

9. The bowls resembled Alexandrian cups, of which the mouth is broad and the bottom narrow. And the knops *were* like apples of Kirjathaim,[9] which are of little length, like an egg broad at its two ends ;[10] and the flowers, like the flowers of pillars, which are like a kind of saucer with the lips turned outwards.[11]

10. The height of the candlestick was eighteen handbreadths. The legs and the flower three handbreadths, and two handbreadths plain, and a handbreadth in which were a bowl, a knop, and a flower, and two handbreadths plain, and a handbreadth a knop, and two branches issued from it one on each side and were extended upwards to opposite the summit of the candlestick, and a handbreadth plain, and a handbreadth a knop, and two branches issued from it one on each side and were extended upwards to opposite the summit of the candlestick, and a handbreadth plain, and a handbreadth a knop, and two branches issued from it one on each side and were extended upwards to opposite the summit of the candlestick, and two handbreadths plain. There remained three handbreadths, in which were three bowls, a knop, and a flower.[12]

11. And there was a stone in front of the candlestick and in it three steps, upon which the priest stood and trimmed the lamps, and he put upon it the vessel of oil and its tongs and the snuff dishes at the time of the trimming.[13]

[5] Menachoth 88 *b*. R. Nehemiah was of opinion that the lamps were not included in the talent.

[6] Menachoth iii, 7.

[7] "At the top of each branch was a lamp like a cup and there they put the oil and the wicks" (Rashi in Menach. 28 *a*).

[8] Menaduth 98 *b*, and the comment of Rashi.

[9] Joshua xiii, 19, &c. Cariathaim is mentioned by Eusebius as a village near Medoba and Baris.

[10] For the signification of the word כדין, *cf.* a passage in Avodah Sarah 40 *a*, and the note of Rashi; also Aruch and Buxtorf, *s.v.*

[11] Menachoth 28 *b*, and the comment of Rashi. The remark that the flowers were like little dishes or saucers seems to be Maimonides' own.

[12] Menachoth 28 *b*.

[13] Tamid iii, 9. The Mishna says that he left the oil vessel, כוז, on this stone, but does not mention his putting the tongs and snuff-dishes upon it.

12. The table of *shewbread* was twelve handbreadths long and six handbreadths broad.[14] It was placed with its length parallel to the length of the house, and its breadth to the breadth of the house, and so all the other "vessels" which were in the Sanctuary, their length was parallel to the length of the house, and their breadth to the breadth of the house, except the arc, the length of which was parallel to the breadth of the house.[15] And also the lamps of the candlestick *were* opposite to the breadth of the house between the north and the south.[16]

13. There were for the table four golden rods cleft at their tops, against which rested the two piles of shewbread, two for each pile, and these are what are mentioned in the Law as "the covers thereof," קשותיו.

14. And it had twenty-eight golden reeds, each one of them like the half of a hollow reed, fourteen for the one pile and fourteen for the other pile, and these are what are called the "bowls thereof," מנקיותיו.

15. And the two censers in which they put the incense upon the table by the side of the piles are what were called "the spoons thereof," כפותיו. And the moulds in which they made the shewbread are what were called "the dishes thereof," קערותיו.[17] The fourteen reeds were thus arranged: the first cake was placed upon the table itself, and between the first and the second were put three reeds, and also between each two cakes three reeds, but between the sixth and fifth, two reeds

[14] Menach. xi, 5. "The table was ten handbreadths long and five broad. . . . . Rabbi Meyer said the table was twelve *handbreadths* long and six broad." In the first statement the cubit is taken to be a small one of five handbreadths, in the second a medium cubit of six handbreadths. The decision appears to have been according to R. Meyer's opinion.

[15] Menach. xi, 6 and 98 *a*.

[16] The position of the candlestick is discussed at length in Menachoth, 98 *b*. Maimonides is of opinion that it stood across the house, three branches being towards the north and three towards the south, and this agrees with the statement that whilst the lamps which were upon the branches looked towards the central lamp, the latter looked towards the Holy of Holies, and hence was called the western lamp (*vide supra*). Rashi (in Menach. 98 *b*) says the candlestick "was always placed north and south, and therefore only one *of its lamps* looked towards the west, and that was the middle one, the mouth of whose wick was towards the west, and the rest had their wicks looking towards the middle lamp, the three on the northern side looking towards the south, and the three on the southern side looking towards the north." Yet a passage in Tamid iii, 9, which alludes to the "eastern lamps," gives support to the opinion held by some of the Rabbis that the candlestick stood east and west, and that the western lamp was the outer lamp on the western side, which position, moreover, is in accordance with the rule that the length of the "vessels" was parallel to the length of the house.

[17] Menach. xi, 6, gives the number of the rods and reeds. The Gemara (97 *a*) adds "'the dishes thereof,' these were the moulds; 'the spoons thereof,' these were the censers; 'the covers thereof,' these were the rods; and 'the bowls thereof,' these were the reeds 'to cover withal,' because they covered the bread

only, because there was no other above the sixth. Thus there were fourteen reeds to each pile.[18]

16. And there were two tables within the porch at the door of the house. One of marble upon which they placed the shewbread when they took it in, and one of gold upon which they placed the bread when they carried it out, because they rose higher and higher with holy things, and went not lower and lower.[19]

17. The altar of incense was a cubit square,[20] and it stood in the holy place (היכל), equidistant from the north and the south *sides* and drawn from between the table and the candlestick towards the outside[21] (*i.e.*, towards the door), and the three were placed in the third part of the holy place and inward, opposite to the veil which divided between the holy place and the most holy.[22]

18. There were twelve spouts to the laver in order that all the priests occupied with the continual service might sanctify [*i.e.*, wash] themselves at the same time. And they made a machine for it in which there might constantly be water. And it was profane [not hallowed] in order that the water that was in it might not become unlawful by remaining all night, because the laver was one of the sacred vessels and sanctified *whatever was placed in it*, and everything that became sanctified in a sacred vessel if it remained all night became unlawful.[23]

with them." The following are the names given to these several appurtenances of the table:—

Hebrew.	A.V.	Talmud.	Signification of Talmud word.	LXX.	Vulgate.
קערה	dish	דפוס	mould	τρυβλιον	acetabulum
כף	spoon	בזיך	censer, acerra	θυισκη	phiala
קשה	cover	סניף	furcula	σπονδιον	thuribulum
מנקית	bowl	קנה	reed	κυαθος	cyathus

[18] Menachoth 98 *a*, where it is said that the lower cakes were placed, מעל שהרו של שולחן, upon the middle of the table, or perhaps upon the clean surface of the table, the bare table (Lev. xxiv, 6).

[19] Menachoth xi, 7.

[20] Exodus xxx, 2.

[21] Joma 33 *b*. "The table was on the north, drawn two cubits and a half from the wall, and the candlestick on the south, drawn two cubits and a half from the wall. The altar was between and stood in the middle drawn towards the outside," which Rashi explains to mean towards the east, where was the door of the temple.

[22] *Cf.* Tosefta Yoma, 2.

[23] Yoma iii, x, 37 *a*. "Ben Katin made twelve spouts to the laver, there

having been only two *before*. And also he made a machine for the laver in order that its water might not become unlawful by remaining all night." Ben Katin was a high priest. The Gemara explains the reasons why twelve spouts were required; also that the "machine" was a wheel by means of which the laver [?] was "immersed" in the cistern (*cf.* Rashi). The structure and use of this famous machine are not clearly understood. That by its means the laver itself could have been immersed in a מקוה gathering of waters or spring [Maim., Biath Hammikdash v, 14] and raised again by one unassisted priest [Tamid i, 4] will appear impossible, if we remember how large and heavy the laver must have been for twelve priests to wash at it at one time. Maimonides in his comment on the Mishna hazards the suggestion that the machine was a vessel surrounding the laver, and that the water remained constantly in it, and was removed into the laver as required. Not improbably it was a bucket attached to a rope or chain running over a wheel by means of which the water was raised, and which was let down into the "cistern or spring" at night, its water being thus "joined with the water of the cistern" (Rashi, Bartinora, Tosefoth Yom Tov). That it was a clumsy instrument appears from the fact that the noise it made could be heard at Jericho! [Tamid iii, 8.] The chief interest which attaches to this curious question arises from the circumstance that all the Rabbinical commentators appear to assume that there was a cistern, pool, or fountain under the laver, a point not to be forgotten in any attempt to determine the site of the Sanctuary.

It may be mentioned here that the Talmud teaches that there was a canal which brought water to the Sanctuary from the fountain of Etam (Jerus. Yoma perek iii, fol. 41, *a* 1; Maim., Biath Hammikdash v, 15). This water went in the second temple to the bathroom of the high priest on the Day of Atonement, which was over the water-gate [Yoma 31 *a*]; in the first Temple it supplied the molten sea. עין עיטם, the fountain of Etam, is said to have been twenty-three cubits higher than the floor of the court, and hence it is inferred that the water might easily be forced to the top of the gate which was only twenty cubits high, [Yoma, *loc. cit.*] Rashi thinks Etam may have been the same as Nephtoah [Joshua xv, 9.] The Talmudic doctors held a curious theory respecting the water of Etam, which may be best given in the words of Rashi, "The slopes of Babylon returned the waters which were poured upon them to the fountain of Etam, which was a high place in the land of Israel, and this fountain brought water to the bathroom of the high priest on the Day of Atonement, which was situated on the wall of the court over the water-gate. As is said in the order for the Day of Atonement (Yoma 31 *a*), 'the fountain of Etam was twenty-three cubits higher than the floor of the court.' And how did they return? There are by the Euphrates canals and stairs, סילונות וסולמות, below the surface (of the sea), and by the way of these stairs [probably there is here an error, סולמות being put for סילונות] the waters returned to the land of Israel. And they returned and welled up in the fountains. And the fishes returned by way of those stairs, which were easier for their ascent than the way of the Euphrates itself" (Shabbath 145 *b*). The curious may follow this subject in the Gamara, Tosefoth and gloss of Rashi in Bechoroth 44 *b* and 55 *a*. "R. Judah said that Rab said all the rivers in the world are lower than the three rivers (Hiddekel, Pison, and Gihon), and the three rivers are lower than the Euphrates."

CHAPTER IV.

1. THERE was in the Holy of Holies, on its western side, a stone upon which the ark was placed[1] and in it the pot of manna and Aaron's rod.

[1] Yoma v, 2. "After the ark was removed there was a stone there" (in the Holy of Holies) "from the days of the first prophets and it was called *Sheteyah*, '*foundation*.' Its height from the earth was three fingerbreadths." The Gamara adds, "it is taught that from it the world was founded, which is as much as to say from Zion the world was created. According to the Bareitha, R. Eleazer said the world was created from its middle, as is said "When the dust groweth into hardness, and the clods cleave fast together" (Job xxxviii, 38). R. Joshua said the world was created from the sides, as is said, "for he saith to the snow, be thou on the earth; likewise to the small rain, and to the great rain of his strength" (Job xxxvii, 6). R. Isaak (Niphka) said the Holy One, blessed be He, threw a stone into the sea, *and* from it was the world created, as it is said "whereupon are the foundations thereof fastened, or who laid the corner stone thereof?" (Job xxxviii, 6), and the wise men said it was created from Zion, as it is said, "A psalm of Asaph. The Mighty God, even the Lord," and says "from Zion the perfection of beauty" (Psalm l, 1); from it was perfected the beauty of the world. The Bareitha teaches that R. Eleazer the great said "these are the generations of the heavens and of the earth when they were created, in the day that the Lord God made the earth and the heavens" (Gen. ii, 4). The generations of the heavens were created from the heavens; the generations of the earth were created from the earth. And the wise men said both the one and the other were created from Zion, as it is said "A psalm of Asaph. The mighty God, *even* the Lord hath spoken, and called the earth from the rising of the sun unto the going down thereof," and it says "out of Zion, the perfection of beauty, God hath shined," from it was perfected the beauty of the world (Yoma 54 *b*). Such were the Rabbinical opinions respecting this famous stone, which, according to Rabbi Schwarz (das heilige Laud 216-7), is identical with the Sakhrah or sacred rock at present venerated by Mahommedans under the Dome of the Rock.

In the Toldoth Jesu the Aven Hashsheteyah, "stone of foundation," is affirmed to be the stone which the patriarch Jacob anointed with oil. Upon it was said to be written the letters of the *the nomen tetragrammaton*, the ineffable name of God, and lest anyone should learn the letters of this name and become possessed of the wondrous powers which that knowledge conferred, two dogs were placed near the Sanctuary, which, if anyone had succeeded in learning the letters, barked so fiercely at him as he was passing out as to cause him immediately to forget them. It is said that Jesus having entered, learned the letters, wrote them upon parchment, and placed the parchment in an incision which he made in his thigh, the skin closing over it on the name being pronounced, and having escaped the canine guardians of the place, thus became possessed of the supernatural powers which he afterwards manifested (Buxtorf Lex. Talmud, 2541). In Wagenseil's edition of the Toldoth Jesu the stone is said to have been found by King David when digging the foundation of the temple (*cf.* Maccoth 11 *a*) "over the mouth of the abyss," and that he brought it up and placed it

And when Solomon built the house, knowing that its end was to be destroyed, he built in it a place in which to hide the ark underneath in secret places, deep and tortuous. And Josiah the king commanded them to hide *the ark* in the place which Solomon built, as it is said "and he said unto the Levites that taught all Israel, which were holy unto the Lord, put the holy ark in the house which Solomon the son of David, king of Israel, did build; it *shall* not *be* a burden upon *your* shoulders; serve now the Lord your God," &c. (2 Chron. xxxv, 3). And there were hidden with it the rod of Aaron, and the pot of manna, and the anointing oil, and all these were not restored in the second house.[2] And also the Urim and Thummim, which were in the second house, did not respond by the Holy Spirit, nor did they enquire of them, as it is said, "till there stood up a priest with Urim and with Thummim" (Ezra ii, 63), and they only made them in order to complete the eight garments of the High Priest, in order that he might not be מחוסר בגדים, wanting in the proper number of garments.[3]

in the Holy of Holies. The Targum of Jonathan represents *the Name* as being engraved on the stone of foundation with which "the Lord of the world covered the mouth of the great abyss" (Exod. xxxviii, 30). When Jonah was in the belly of the fish he was carried under the Temple of the Lord, and saw the stone of foundation fixed to the abysses, קבעק בתהומות (Tanchuma 53, *b* 1).

There is a tradition that the prophet Jeremiah took this stone with him to Ireland, that it was subsequently conveyed to Scotland by an Irish prince, and eventually removed by King Edward III to Westminster Abbey, since which time all the kings and queens of England down to Victoria have been crowned upon it.

Nearly all modern Rabbis appear to hold the opinion of R. Schwarz respecting this stone of foundation. It seems strange that it should have been confounded with Zoheleth, yet in the Jewish manual arba' taanoth (tisha b'av) this identity is suggested.

By the first prophets, Samuel, David, and Solomon are here intended (Rashi, Sotah 58 *b*).

[2] In Yoma 52 *b*, Keritoth 5 *b*, Horioth 12 *a*, it is said "with the ark there were hidden the pot of manna, the vessel of anointing oil, the rod of Aaron, its almonds and blossoms, and the coffer which the Philistines sent as a gift to the God of Israel" (1 Sam. vi, 8). For the place in which the ark was hidden, see 2 Chronicles xxxv, 3; Shekalim Yirushalmi, ch. vi, page 10, and Rashi on Keritoth, 5 *b*. All the Rabbinical writers held that there were chambers or hollow spaces under the whole Sanctuary, and it is doubtless some of these to which Maimonides here refers. The exact position of the hiding-place of the ark was supposed to be near the chamber of wood in the court of the women (Shekalim vi, 2).

[3] In Yoma, 21 *b*, it is said "in five things the second house differed from the first house, viz., there was in it neither ark, nor atonement, nor cherubim of fire, nor the Shekinah, nor Holy Spirit, nor Urim and Thummim." Rashi held that the ark, the atonement and the cherubim were one. The opinion that there were Urim and Thummim in the second house, in order that the number of the

2. In the first house there was a wall, a cubit thick, dividing between the holy *place* and the most holy,[4] and when they built the second house they doubted whether the thickness of the wall was taken from the measure of the holy *place*, or from the measure of the most holy, and therefore they made the length, עביר, of the most holy *place*, exactly twenty cubits, and the holy *place*, exactly forty cubits, and they put an additional cubit between the holy *place*, and the most holy.[5] And they did not build a wall in the second house, but made two vails, one on the side of the most holy *place*, and one on the side of the holy *place*, and betweeen them *was* a cubit corresponding to the thickness of the wall which was there in the first *house*. But in the first Sanctuary there was one[6] vail, as is said, "and the vail shall divide unto you," &c. (Exodus xxvi, 33).

3. The temple[7] which the children of the captivity built, was a hundred cubits by a height of a hundred. And thus was the measure of its height. They built to a height of six cubits closed and solid, like a kind of foundation to it,[8] and the height of the wall of the house forty cubits, and the height of the ornamented beam, כיור, *kiyor* or *ceiling*, which was by the roof, a cubit, and above it a height of two cubits vacant, in which the

garments of the high priest might not be incomplete, but that they did not enquire of them, is derived from the Tosefoth Yoma, 21 *b*. Rabbi Abraham ben David questions whether Urim and Thummim could be numbered with the garments [note on Beth Habbech], nor does Maimonides himself in his enumeration [in Kle Hammikdash viii, 2] of the high priest's garments mention the Urim and Thummim.

[4] Yoma 51 *b*, and the comment of Rashi; *cf.* Baba Battira, 3 *a*.

[5] Jerus. Kelaim, ch. viii.

[6] Yoma v, 1; *cf.* Gamara and Tosefoth 51 *b*.

[7] היכל. The whole of this section is from Middoth iv, 6.

[8] Maimonides elsewhere ["Commentary on the Mishnas," Midd. *in loc.*] says that this foundation was built בגוף הקרקע, in the body of the earth, and that the walls were placed upon it. The "Tafaereth Israel" ("Mishmaoth Rabbi, Lipsitz. Warsaw," 1864) has this passage, "it was the foundation, and was six cubits high, because the mountain rose and fell, and the temple and the porch were built upon the top of the mountain upon the level ground, and the walls stood near the place where the mountain began to descend, and thus in order to give to the house a firm foundation, לבלי ימוט, without tottering, they built a foundation of hewn stones around the above mentioned level ground six cubits high; and inasmuch as that foundation was joined [אטום, closed] on the inner side with the ground, so that the inside of the porch and temple was not seen at all, it was called איטם, *closed*," and this in accordance with the remark of Rabbi Shemaiah, that "the threshold of the house was raised six cubits above the ground by closed masonry, solid wall, and it is necessary to say that there were steps at the porch by which they went up to the threshold, and for those going down from the temple to descend from the threshold." [Middoth, *loc. cit.*] Had these six cubits been "in the body of the earth," they could not have been reckoned to the height of the building.

dropping might be collected, and this is what was called בית דילפא, *domus stillicidii*, place of dropping. And the thickness of the rafters above the place of dropping a cubit, and the plaster a cubit.[9] And an upper chamber was built above it, the wall of which *was* forty cubits high, and by its roof a cubit, the height of the ornamented beam, and two cubits the height of the place of dropping, and a cubit the rafters, and a cubit the plaster, and the height of the battlement three cubits ; and a plate of iron like a sword, a cubit high, was above the battlement, all round in order that the birds should not rest upon it, and this is what was called the scarecrow. Thus the whole was a hundred cubits.

4. From the west to the east *was* a hundred cubits, and this was their arrangement : four walls, one in front of the other, and between them three vacant places ; between the western wall, and the wall in front of it five cubits, and between the second and third wall six cubits, and between the third and fourth wall six cubits ; and these were the measurements of the thickness of the wall with the vacant place, which was between two walls. And the length of the Holy of Holies twenty cubits, and between the two veils, which divided between it and the holy place, a cubit, and the length of the holy place, forty cubits, and the thickness of the eastern wall in which was the gate six cubits, and the porch eleven cubits, and

[9] "*Kioor* is engraved work (2 Chron. ii, 13 ; Zach. iii, 9), and the engraved ornaments which architects make in lime or stone, and sometimes it is said *Kioor v'tzioor*, *i.e.*, engraved and painted. דלף *dropping*, is the dripping of water from the roof, and it was the custom to make for buildings two roofs, one above the other, and to leave a small place between the two, and to call this hollow space בית הדילפה, *domus stillicidii*, from the word דלף, *to drop*, so that if the upper roof should drip, the water would remain in that space" [Maim. Comment on Mishnas, Midd. iv, 6]. "*Kioor*, the lower rafter of the roof . . . . and because it was covered with gold and painted with beautiful pictures it was called *Kioor* . . . . the upper rafters, which rested upon the lower rafter, was two cubits thick, and these were called בית דלפה, *domus stillicidii*" [Bartenora on Midd., *in loc.*] A modern gloss on this passage of the Beth Habbech says "it is a custom in Turkey in building princes' houses to make a roof of planks painted with beautiful pictures. It is called *tavan*, and above it the principal roof which is exposed to the sky, and a space between the *tavan* and that principal roof, and if at any time the principal roof should leak, the dropping would descend in that space upon the top of the *tavan*, and on this account it was called *domus stillicidii*."

The structure of the present roof of the outer corridor of the Dome of the Rock at Jerusalem may illustrate that of the ancient Temple.

"The מעזיבה (*or plaster*) was the lime and stones which were placed upon the roof" [Maim. on Midd., *in loc.*] Sometimes reeds and bushes were placed over the rafters, and the cement laid on above. [Baba Metyia (as quoted by Aruch) 117 *a* ; *cf. ib.* 116 *b*, in Mishma, and note of Rashi ; also Baba Bathri 20 *b* in Mishna.] It was the custom to roll this plaster with a cylindrical stone called *mágilah*, מעגילה [Macoth ii, 1]. Such roofs are common in Palestine at the present day.

the thickness of the wall of the porch five cubits, altogether a hundred cubits.[10]

5. From north to south a hundred cubits. The thickness of the wall of the porch five cubits, and from the wall of the porch to the wall of the holy place ten cubits, and the walls of the holy place six walls, one in front of the other, and between them five vacant places. Between the outer wall and the second five cubits, and between the second and third three cubits, and five between the third and fourth, and between the fourth and fifth, six, and between the fifth and the inner wall six, in all forty cubits on this side, and forty cubits on the side which was opposite to it, and the breadth of the house within, twenty cubits. Lo, there were a hundred cubits.[11]

6. The *pishpaesh*, פישפש, is a little door. There were two little doors to the temple by the sides of the great gate, which was in the middle, one on the north, and one on the south. By that on the south no man ever entered, and in reference to this it was explained by Ezekial (xliv, 2) "this gate shall be shut, it shall not be opened." But by that on the north they entered, and going between the two walls until he reached the place where was the opening into the holy place on his left, he went into the interior of the temple היכל, and proceeded as far as the great gate and opened it.[12]

7. The breadth of the great gate was ten cubits, and its height twenty cubits. And it had four doors, two within and two without, the outer ones opened into the doorway to cover the thickness of the wall, and the inner ones opened into the house, to cover the space behind the doors.[13]

8. The doorway of the porch was forty cubits high, and twenty broad, and there were no gates to it.[14] And there were five carved oaken beams over the doorway above. The lower one extended beyond the doorway, a cubit on each side, and each one of the five extended beyond that below it, a cubit on each side, so that the upper one *measured* thirty cubits, and there was a row of stones between every two *beams*.[15]

[10] These measurements are essentially the same as those given in Middoth iv, 7, but by reckoning the thickness of the walls west of the Holy of Holies as spaces, and each face of a wall as a distinct wall, obscurity has been occasioned.

[11] Middoth iv, 7. See the last note. The account in Middoth gives only the breadth of the house behind the porch. According to Maimonides the room for the slaughtering instruments measured ten cubits by eleven, internal measurement.

[12] Middoth iv, 2 ; Tamid iii, 7. In the Mishna it is said that the priest, after opening the little door, entered the chamber and thence passed into the temple. Maimonides does not agree with Rabbi Judah's opinion that the priest went in the thickness of the wall until he found himself standing between the two gates.

[13] Middoth iv, 1.

[14] Tosefoth Avodah Zarah 53 *a*. "The porch was open along its whole eastern side."

[15] Middoth iii, 7.

9. The temple היכל, was built broad in front and narrow behind, like a lion.[16] And there were chambers surrounding the whole house round about, besides the wall of the gallery. The lower chamber *was* five *cubits broad*, and the roofing, רובד, above it six, and the middle chamber six, and the roofing above it seven, and the uppermost seven, as is said "the nethermost chamber" &c. (1 Kings vi, 6), and thus the three chambers surrounded the house on its three sides.[17] And also around the walls of the porch from below upwards there were thus: a space, חלק, of one cubit, and a standing place, ריבד, three cubits, and a space of one cubit, and a standing place three cubits to the upper part. And the standing places, רוביים, surrounded the walls, the breadth of each standing place was three cubits upwards, and between each two standing places a cubit, and the upper standing place was four cubits broad.[18]

[16] Middoth iv, 7.

[17] Middoth iv, 3, 4. רובז is a floor or pavement, and the word is used here because the roof of one chamber formed the flooring of the chamber above.

[18] Middoth iii, 6. The following is Lightfoot's rendering of this passage :— "Round about the walls of the porch from below upward they were thus: one cubit plain, and then a half pace of three cubits, one cubit plain (or an ordinary rising of steps) and then another half pace of three cubits, and so up, so that the half paces did go about the walls of the porch."

Also by the Jewish commentators the passage in Middoth which Maimonides here paraphrases is taken to refer to the steps and standing places which led up to the porch. But Maimonides understood it to refer not to the steps, but to a kind of ornament of the wall itself consisting of a projection three cubits in perpendicular measurement repeated at intervals of a cubit, the uppermost projection measuring four cubits. In his comments upon the Mishnas (Midd. iii, 6) he says "the wall of the porch was built according to this arrangement, which was that one cubit in the height of the wall its *whole* length was plain and even like the rest of the walls, afterwards the building or masonry projected from the wall like a balcony, כצוצרה, three cubits high, afterwards, at a distance of one cubit, it projected again, and this is what was called *robad*, רובד, and thus the structure of the whole was a cubit, and a *robad* three cubits," &c.

If the steps of the porch are referred to there could not have been more than three cubits between the lowest step and the foundation of the altar. According to some opinions there was only one; and it seems hardly possible that a bullock could have stood and been slaughtered by the priest in so small a space [Yoma iii, 8] without inconvenience. In the same narrow space, also, the whole company of officiating priests must have stood whilst one of their number sounded the *magrefah*; an instrument so large and powerful that people in the city could not hear one another speak for the noise it made, and whose "voice" could be heard at Jericho!

The laver, moreover, was between the porch and the altar, and it must have been very small if the space between the altar and steps was only three cubits, unless, indeed, as has been suggested ["Tafaereth Israel Mishnas, Warsaw, 1864"], it was placed upon the steps themselves. Objections to this latter view are, 1, that no mention is made of the priests going up the steps to reach the laver, and, 2, that the account of the manner in which the priests performing the

10. All these vacant places, which were between the walls, are what were called תאם, *chambers* (Ezekiel xl, 7, 10). The chambers surrounding the Sanctuary were five on the north, five on the south, and three on the west. And there were three stories, story above story, so that there were fifteen chambers on the south, five above five, and five above them, and also on the north fifteen. And on the west were eight chambers, three above three, and two above them, in one story. Altogether *there were* thirty-eight chambers.[19]

11. There were three openings to each chamber, one to the chamber on the right, and one to the chamber on the left, and one to the chamber above. And at the north-eastern corner in the chamber, which was in the middle story, were five openings, one to the chamber on the right, and one to the chamber which was above it, and one to the gallery, and one to the chamber in which was the little door, and one to the temple (היכל).[20]

12. And a gallery (or winding staircase), מסיבה, ascended from the north-eastern corner to the north-western corner by which they went up to the roofs of the chambers. Going up by the gallery with his face to the west, he traversed the whole northern side until he reached the west; having reached the west he turned his face to the south, and passed along the whole western side until he reached the south; having reached the south, he turned his face to the east and went along on the south, till he reached the door of the upper chamber, for the door of the upper chamber opened on the south.[21]

13. And at the door of the upper chamber were two beams of cedar wood by which they went up to the roof of the upper chamber. And pointed pieces[22] divided in the upper chamber between the roof the holy place, and the roof of the Holy of Holies. And there were in the upper chamber openings[23] into the Holy of Holies, by which they let down the workmen in boxes that they might not feast their eyes upon the Holy of Holies. And once a year, at every Passover, they whitened the temple (ההיכל).[24]

(*To be continued.*)

daily service ascended the steps to the porch (Tamid vi, 1) seems to imply that they had not before ascended any of them, החלי עולים, "they *began* to go up."

[19] Middoth iv, 3.

[20] Middoth iv, 3. Maimonides and some more modern commentators regard the lower chamber as having been below the level of the floor of the holy place, and bounded on the outer side by the foundation.

[21] Middoth iv, 5. It appears that the upper story did not extend farther west than the western wall of the Holy of Holies. The roofs of the western, as well as those of the northern chambers, were open to the sky.

[22] Middoth iv, 5. רשי פשפשים were wooden projections from the northern and southern walls, of the upper story [*cf.* Bartenora on Midd. i, 6, and Tafaereth Israel to Midd. iv, 5], or as Maimonides thought from the floor [Comment. on Mishnas, Midd. iv, 5].

[23] ארובות = לולין, *fenestra* [Bartenora, *cf.* Oholoth x, 1].

[24] Middoth iii, 4.

THE "CITY OF DAVID" ONLY A *PART* OF JERUSALEM.

SIR,—Captain Conder has in several places argued against the identification of the modern Ophel with the old "City of David" on account of the inadequacy of its area for "a capital like Jerusalem" (*Quarterly Statement*, 1884, p. 23), "the capital of Syria in David's time" (*Quarterly Statement*, 1884, p. 22), &c., thus making it appear that the terms "City of David" and "Jerusalem" refer to the same area, and are interchangeable.

He himself, however, supplies the answer to this assumption, when, on p. 28, *Quarterly Statement*, 1884, he tells us that Solomon's palace was on Ophel, and "outside the City of David." It is true he says also (p. 28) that Ophel was "only afterwards occupied," it being, according to p. 22, "in the time of Manasseh, when Ophel was included," &c., but this can scarcely be reconciled with the former statement, unless we are to understand that Solomon's palace was outside the *walls* of the "capital of Syria."

The following passages from the Bible, however (some of which I have not yet seen cited in this controversy), prove clearly, I think, that the Scriptural "City of David" was not the whole, but only *part*, of the "capital of Syria," even in Solomon's time.

From 2 Samuel vi, 12, we learn that David brought up the Ark of God from the house of Obed-Edom *into* the *City of David* with gladness. (See also 1 Chron. xv, 29.)

Then after the Temple was built, we find from the almost identical language of 1 Kings viii, 1, and 2 Chronicles v, 6, that "Solomon assembled the elders of Israel . . . to bring up the Ark of the Covenant of the Lord, *out of* the *City of David* which is Zion."

It is quite clear, therefore, that the *Temple* was not *in* the "City of David."

Again, we learn from 1 Kings iii, 1, that Solomon brought Pharaoh's daughter *into the City of David* temporarily, "until he had made an end of building his *own house* and the house of the Lord," &c. Upon the completion of these "she came up *out of the City of David* into her house that Solomon had built for her" (1 Kings ix, 24). This is corroborated by 2 Chronicles viii, 11, which gives us also the reason for her sojourn in the "house [city, Septuagint] of David, King of Israel," not being permanent. These latter show that the "house for Pharaoh's daughter" also was not *in* the "City of David."

Clearly then the "City of David" was not the *whole* of Jerusalem.

The above passages, I venture to think, give greater force to those cited by Rev. W. F. Birch, on page 80, line 3, 1884, *Quarterly Statement*, 2 Kings xiv, 20, and page 198, "No. (2)," 2 Chronicles xxviii, 27, in the latter of which he interprets "in the city of Jerusalem" as meaning "in the City (of David) at Jerusalem." This is further borne out by 2 Kings viii, 24, which tells us that Joram was buried "in the *City of David*," while 2 Chronicles xxi, 20, informs us that "they buried him in the City of David, but *not* in the *sepulchres of the kings*;" and the same is said of Joash, in 2 Chronicles xxiv,

25. Are we to understand that there were *three* royal cemeteries? This follows from the above passages, if the sepulchres in which David, Solomon, and Rehoboam were interred, were *not* on Ophel, where Captain Conder allows it to be probable that the Garden of Uzza was situated, in which were buried the later kings who are not said to have been laid to rest "in the City of David."

If there were only *two* royal sepulchres, then we have *three* passages certainly (and perhaps *four*, if we include the case of Asa, 2 Chron. xvi, 13, 14), in which it is distinctly stated of monarchs who were *not* buried in *the sepulchres of the kings*, that they *were* buried *in the City of David.*

How then can there be any room for doubt, that *if* the later kings were buried on Ophel, the former were so too?

Yours truly,

H. B. S. W.

P.S.—Regarding C. R. C.'s objection to the force of the extract from the Tosiphta ('84, p. 197), may I point out that its bearing on this subject is not weakened by the supposition that Rabbi Akiba was "constructing a theory merely?" Supposing this were the case, he would surely not have "invented" a passage, whose length would have made it clearly impossible of belief if the City of David he knew had been where C. R. C. wishes to place it!

His mention in this connection, of the Brook Kidron, shows sufficiently that the Royal Tomb of which he was speaking (and consequently the City of David, which enclosed it) was in *close proximity* to the Kidron, so that a passage from the tomb to the brook was neither incredible nor unlikely.

VERIFICATION OF REFERENCES.

City of David, *Quarterly Statement*, p. 173, 1884.—Where has Canon Birch written anything that will entitle us to say that he has been "supposing that the City of David stretched across a deep valley?"

Dolmen in Bashan, *Quarterly Statement*, p. 241, 1884.—Where is the passage to be found in which this is described as "*a large* example?"

I cannot find it so spoken of by Mr. Oliphant, and it is certainly desirable that the misleading passage should be pointed out, and the blame for its error rightly attributed.

H. B. S. W.

December 10*th*, 1884.

QUERIES.

The Emek of the dead bodies, &c., Quarterly Statement, 1883, p. 217.—The statement here made that "Jeremiah terms *it*" (*i.e.*, the valley of the Tyropœon) "the vale (Emek) of the dead bodies and of the ashes," makes me desirous of asking whether the use there of the word "Emek" does not imply that the "*valley* of the dead bodies," &c., was one of a different *character*, and, therefore, a different valley, from that of the Tyropœon, respecting which another term, "gai," is used?

The Upper Gihon, Quarterly Statement, 1883, p. 216.—Does the word "upper" in the original necessarily apply to *Gihon?* May it not be used, as in the A.V., so as to read "the upper outlet of Gihon," inasmuch as there is, I believe, no direct mention anywhere in the Bible of any *Lower* Gihon?

Valley of Giants, Quarterly Statement, 1883, p. 222.—May I venture to ask that your readers may be afforded some explanation of the reasons which have caused the expression of the view that this valley was *north* of Jerusalem; and is not the one which extends nearly to Bethlehem as Josephus says it was?

Uzziah's burial, Quarterly Statement, 1884, p. 242.—What are the difficulties "in reconciling the accounts in Kings and Chronicles?" Does not the principal one arise from maintaining that "the City of David was another name for *Jerusalem* generally?" whereas there is no difficulty at all if we regard them as analogous to Henry VIIth's Chapel and Westminster Abbey.

The Siloam Tunnel, Quarterly Statement, 1884, p. 249.—May I ask whether the following is a correct translation of the Syriac version of 2 Chronicles xxxii, 30, and if so whether it may not be considered as strongly corroborating the view that the Siloam Tunnel was made by Hezekiah? I am informed that the *Syriac* in this verse reads:—

"And Hezekiah hid the spring (or outgoing) of the waters of the upper fountain and sent them into the *western tank of* the City of David."

The Lower Gihon, Quarterly Statement, 1884, p. 249.—How can the Gihon mentioned in 2 Chronicles xxxiii, 14, be the Pool of Siloam, when the Gihon is distinctly said to be "Gihon in the Nachal?" I have always understood previously that this passage was the principal proof that the *Virgin's Fountain* was to be identified with *Gihon*, as there is no other *spring* in the Kidron than the Virgin's Fountain; and no other *Nachal* in the environs of Jerusalem than that of the Kidron.

En Rogel and Gihon.—May it be an allowable explanation for the reconcilement of the somewhat conflicting views respecting these two, to suppose that "Gihon" of Hezekiah is the *Virgin's Fountain*, while the "Gihon" of Solomon's anointing is equivalent to the "En Rogel" of Joshua, and is the same as the *Pool of Siloam?* Of course this necessarily supposes the correctness of the distinction made between an Upper and a Lower Gihon—a matter which I have made the subject of a previous query, for the sake of obtaining fuller information.

December 10th, 1884. H. B. S. W.

THE WATERS OF SHILOAH.

In *Quarterly Statement*, 1884, p. 75, I put forward the theory that these waters flowed along an aqueduct on the east side of Ophel from the Virgin's Fountain to the mouth of the Tyropœon. I am anxious for my theory to be tested (and (?) proved) by excavation. Meanwhile, it will be well to dispose of the objections raised against my aqueduct in the last two numbers.

Captain Conder seems to object—

(1) That it has left no known traces of its existence. As the same might have been said of the Moabite Stone before 1868, and the Siloam Inscription in 1879, the objection has obviously no weight. Only let traces be looked for where they may be supposed to exist, and then no doubt they will be found.

(2) That it is so drawn on my plan that it apparently joins on to an existing channel, in which water runs the opposite way. This objection, I consider, was answered by anticipation in the three queries placed in my plan against this part of the aqueduct.

Whether the aqueduct within the Tyropœon ran on the line marked, or on another line, or on no line at all, does not really affect my theory that there used to be an aqueduct on the east side of Ophel between the Virgin's Fount and Siloam.

Professor Sayce offers a curious objection. He says, Sir Charles Warren failed to find any traces of it in his galleries (or shafts) on Ophel, but he does not add (as he rightly might have done) that all these shafts, except possibly two, were *north* of the point whence my supposed aqueduct ran southwards, and that the two exceptions were at least 40 feet higher in elevation than the level of the supposed aqueduct. Under these circumstances it was impossible for Sir C. Warren to discover the aqueduct; he wrote to me, however, in November, 1883, as follows:—"I think it quite possible that there was an aqueduct on the east side of Ophel, as you suggest."

To sum up—

Professor Sayce, in connecting the waters of Shiloah with the Siloam Tunnel, is driven to attribute the latter to Solomon, and not to Hezekiah whom Captain Conder and others (myself among the number) regard as its author.

Captain Conder, by rejecting both Professor Sayce's tunnel and my aqueduct, has the *waters* of Shiloah left on his hands *without any water* at all. For water flowing down the Tyropœon could not be said to go softly, and waters flowing in a natural channel down the Kedron could not be the waters of *Shiloah*, as the meaning of this word shows that they ran through an aqueduct.

Here my supposed aqueduct affords a happy way out of the dilemma. It is most probable that the mouth of the Tyropœon was turned into well-irrigated gardens by means of such an aqueduct, centuries before the gigantic undertaking of making the Siloam Tunnel was ever dreamt of.

October 27th, 1884. W. F. Birch.

ZION, THE CITY OF DAVID.

On urging a Society that sends its maps over the world not to be afraid, but boldly to put the City of David where Nehemiah places it, *i.e.*, south of the Temple, I was told in reply, "You have convinced nobody." This is an objection that has often, on other occasions, been urged against the truth.

I have not claimed to have convinced any one, but still some have been convinced. Professor Robertson Smith says that the Ophel site alone "does justice to the language of the Old Testament." Professor Sayce says, "Mr. Birch seems to me indubitably right in holding that the City of David stood on the so-called hill of Ophel" (*Quarterly Statement*, 1884, p. 80). Sir Charles Warren has for thirteen years candidly owned that the Book of Nehemiah places the City of David on Ophel. Captain Conder, after five years' unyielding opposition, at length admits that "when Ophel came to be inhabited, the name (City of David) may be supposed to have included Ophel" (*id.* 242).

My theory, then, ought not to be rejected off-hand on the plea that no one believes it. Yet what I undertook to do was not to convince my opponents, but to confute their arguments. Two widely divergent objections are urged against me in the July and October numbers. Captain Conder credits me (p. 242) with "confining ancient Jerusalem to the insignificant space south of the Temple," while Professor Sayce thinks I endanger my views by supposing that the City of David stretched across a deep valley;—in other words, the former thinks that I make Jerusalem small, and the latter that I make the City of David large. Strange to say, the *fact* is, I make Jerusalem larger and the City of David smaller than does either of these writers. Want of due circumspection has caused the one to strike on Scylla, and the other to fall into Charybdis. Neither can point to a single passage of mine in these pages in support of the theories they thus attribute to me.

Further, (1) in reply to Captain Conder I must remind him that I have *already* pointed out (1884, p. 81) that "the City of David was only part of Jerusalem," and that I place the former on Ophel, while I make my Jerusalem *larger* than his (*id.* 81). Thus, "confining Jerusalem to Ophel" is just what I have *not* done.

Again, why (2) does Professor Sayce speak of my "supposing the City of David stretched across a deep valley?" Where have I supposed it? So far from doing so, I have consistently for six years repudiated any theory that does not place Zion, the City of David, solely on Ophel (so-called).

My Jerusalem theory is as follows:—

1. The Tyropœon Valley was part of the valley of Hinnom which ran from near the Jaffa Gate through the present city to the Kedron.

2. Zion, the City of David, was entirely on the southern part of the eastern hill, *i.e.*, on Ophel (so-called).

3. The sepulchres of David were in this same part.

4. The "gutter" (2 Sam. v, 8) by which Joab gained access to Zion, was the secret passage (connected with the Virgin's Fount) discovered by Sir C. Warren.

5. Araunah betrayed Zion to David either by divulging the secret of the "gutter," or by assisting Joab in ascending it.

I have defied any one to upset No. 2, but I am willing to extend the challenge to the other points. Accordingly, when Professor Sayce comes boldly to the attack, I cannot run from my guns, but must ruthlessly mow down his objections to my (not Canon Birch's) theory by confuting them. I am glad, however, to say that Professor Sayce agrees with me, partially on No. 1, and all but entirely on Nos. 2 and 3, but he wholly rejects No. 4, and consequently No. 5, though, since he is "quite ready to believe whatever Josephus may say provided it is not contradicted by external or internal evidence" (p. 172), I anticipate in the end his hearty acceptance of my last point.

Professor Sayce's objections to No. 4 are practically three.

(1) He urges that 2 Samuel v, 6–8, has to do with the capture of *two* places, and that therefore it was not Zion, the City of David, to which Joab gained access.

(2) That Joab could not have got up the shaft found by Sir C. Warren, since in Professor Sayce's opinion it did not then exist, being of later date than the Siloam Tunnel.

(3) That the Hebrew word for "gutter" means a waterfall, and therefore could not be a rock-cut shaft or passage.

To make the matter in dispute more intelligible, I give in full the passages in question :—

2 Samuel v, 6. "And the king and his men went to Jerusalem unto the Jebusites, the inhabitants of the land, which spake unto David, saying, Except thou take away the blind and the lame, thou shalt not come in hither : thinking, David cannot come in hither.

7. "Nevertheless David took the stronghold of Zion : the same *is* the City of David.

8. "And David said on that day, Whosoever getteth up to the gutter, and smiteth the Jebusites, and the lame and the blind, *that are* hated of David's soul, *he shall be chief and captain.* Wherefore they said, The blind and the lame shall not come into the house."

1 Chronicles xi, 6, states : "And David said, Whosoever smiteth the Jebusites first shall be chief and captain. So Joab the son of Zeruiah went first up and was chief."

To prove his first point, Professor Sayce tries to make a short cut, by impressing into his service Hebrew grammar. He protests against my describing his interpretation of two places being taken as a "popular error" (perhaps my *popular* was ill-chosen), and asserts that "the Hebrew tenses admit of no other (interpretation) ; we have *waw consecutivum* in each clause. The narrative sets before us a sequence of events. . . . David captured the outpost of Zion, and *after this*—but on the same day—he promised rewards to 'whosoever getteth up to the gutter,' &c."

My contention (p. 72) was that in verse 8 the sense would be made clearer by translating "And David said" by "For David said," &c., since this verse explains *how* David succeeded in taking Zion, the capture of which was mentioned in the previous verse.

The question is, *Must* the words translated "And David said" mean "And *after this* (the previously mentioned event) David said," or may they not mean "For David said," and, if so, does not this rendering agree better with the rest of the passage?

A disputed point of grammar must be dealt with by a competent Hebrew scholar. I extract the following from a full explanation of the question, kindly furnished to me by Professor Theodores :—

"The verbal form called 'future' (Hebrew עתיד by the older grammarians), is variously named in the modern grammars as imperfect, aorist, fiens, &c. . . . The letter ו prefixed to the 'future,' generally provided with the vowel Pathach (-) and followed by a dot called 'strong Dagesh' in the initial letter of the verb, has the property of changing the verb from the future to the past, whence the Hebrew grammarians named it 'the vaw conversive.' Modern grammarians have invented for it different names, *consecutive*, voluntative, relative, &c. The interpretation of the prefix ו varies between *and*, *now*, *for*, *but*, *still*, *nevertheless*, *then*, *inasmuch as*, *namely*, *consequently*, and probably still more particles, either temporal or logical.

"It is not true that וַ before a verb in the future *must* be interpreted to mean 'afterwards' (Sayce, p. 174). Examples are numerous. . . . Thus in Genesis xxxvii, 5, we read (A.V.), 'And Josephus dreamed a dream, and he *told it* his brethren, and they hated him yet the more.'"

Here follows verse 6 : "And he said [future with וַ] unto them, Hear, I pray you, this dream which I have dreamed." Would it not be absurd to render the beginning of verse 6, viz., וַיֹּאמֶר (wayyōmer), "Afterwards he said unto them?" Joseph did not tell his dream in consequence of his brothers' hatred ; but his brethren hated Joseph in consequence of his communication about dreaming. In point of time, verse 6, commencing with "And he said," is anterior to the words "and they hated him yet the more" in verse 5. Again, in Exodus xl, 17, we are informed that on the first day of the first month in the second year the tabernacle was reared up. The next verse, the 18th, reads, "And Moses reared up [future with וַ] the tabernacle, &c." Can וַ here mean "afterwards?" What! *after* the rearing up of the tabernacle, Moses reared up the tabernacle!

Professor Theodores adds this translation :—(6) "Then marched the king and his men towards Jerusalem against the Jebusite inhabiting the land, and he said to David thus, Thou wilt not enter here, except thou set aside the blind and the lame, meaning: David shall not enter here! (7) Nevertheless, David conquered the fortification 'Zion,' which is 'the City of David. (8) For David proclaimed on that day, He that smites the

Jebusite, reaching so far as the aqueduct, along with the lame and along with the blind, those hated by the soul of David . . . [The Scripture is here elliptical, not stating what should be done to him, but the want is supplied in 1 Chronicles xi, 6], because the lame and the blind, even they say he shall not enter within. (9) Thus David settled in the fort and called it the City of David. And David built round about from Millo and inward." Professor Theodores further adds:—"In the Hebrew commentary, called Biur, on the translation called Mendelssohn's, the following opinions are stated:—Verse 7. 'And David conquered.' This 'And' is adversative and means *but, nevertheless.* Verse 8. 'And David said.' In the preceding verse (7) the text states in a *general* way that David overpowered the stronghold, but now in (8) the *particulars* are stated how the conquest was effected."

Thus it is amply shown that the grammar does not prove that two places were taken in 2 Samuel v; 1 Chronicles xi. If I may add a word of my own, I would say there would be an unaccountable *lacuna* in the sacred narrative if two places had been taken, since no mention whatever is made of the second capture. The passages give a complete story of one place being taken, stating the fact of its capture, that a reward had been offered for its capture, and the name of the successful hero.

The A.V. is right in the heading of 1 Chronicles xi: "He winneth the castle of Zion from the Jebusites by Joab's valour," and so far I was wrong in describing Professor Sayce's interpretation as a *popular* error. Thus I conclude that it *was* the fort (of) Zion to which Joab gained access.

But, secondly, Professor Sayce says (175): "The careful workmanship of these passages, the niches for lamps—a Græco-Roman invention—the iron ring, and the fact that the lower conduit (discovered by Sir C. Warren) led into the winding Siloam Tunnel, all go to show that this lower conduit was later in age than the Siloam one."

a. Niches for lamps.—In his account of the Siloam Tunnel (1881, p. 142) Professor Sayce mentions a niche opposite the inscription, and admits the reasonable suggestion that it was for the lamp of the workman that cut the letters. Was the inscription therefore (and the tunnel as well) a Græco-Roman invention? I will not, however, press the point. If Professor Sayce will refer to Colonel Warren's account of the passage, he will, I think, find no mention whatever of "niches for lamps," but only of piles of loose stones (Letters, p. 39; Memoirs, Jerusalem, p. 367), an invention dating as far back as Jegar—sahadutha.

b. "*The iron ring.*"—My initials and H.B. are smoked beyond the broad arrow in a low passage in the cave of Adullam, but the antiquity of the cave is not consequently reduced. The ring *must* have been added after the passage was made, but how long after no one knows, and therefore the *iron* age proves nothing.

c. The lower conduit, &c.—It would, however, be quite as correct (more correct I believe) to say "the Siloam Tunnel led into the conduit." Colonel Warren's professional opinion (Letters, p. 40) on discovering the passage, was

as follows:—"The fact of the newly found aqueduct being nearly in a line with the first 50 feet of the old one, gives the idea that this may originally have been the means of providing Ophel with water, and that the remainder of the duct to the present Pool of Siloam may have been an afterthought."

He also holds to the same opinion in "Underground Jerusalem" (p. 333). Thus Professor Sayce's second objection fails.

His third objection I propose, if time permit, to answer fully when I have exposed in detail the fallacies of the arguments urged for placing the City of David in any other position than on Ophel (so-called). It will suffice now to say that the evidence proving that the gutter was an aqueduct, and that Araunah betrayed Zion, is given in *Quarterly Statement*, 1878, p. 184; 1879, p. 104.

W. F. Birch.

THE ROUTE OF THE EXODUS.

I.

Permit me to reply to the views of Mr. Baker Greene, as given in the October number of the *Quarterly Statement* of the Palestine Exploration Fund, and which have been made the subject of a leading article in the *Morning Post* of the 22nd October, regarding the identity of Mount Hor with Mount Sinai. I regret not having seen Mr. Greene's book, but as his views are very fully set forth in the *Quarterly Statement* I will deal with a few points on which he lays stress in that publication; and I hope to be able to show, by the aid of a few crucial tests, that his views are altogether untenable.

I may be allowed to point out that this is pre-eminently a question which requires some personal knowledge of the countries referred to; and it does not appear from Mr. Baker Greene's statement that, like the venerable Dr. Beke, he has made a pilgrimage to the East in order to verify his views by personal observation. On the other hand, I may remind the reader that the identification of Mount Sinai (Jebel Mûsa) in the peninsula of Arabia Petræa with the "Mount of the Law" has been maintained by eminent men who have personally examined the district, such as Dr. Robinson, Burkhardt, the late Professor Palmer, and Col. Sir Charles W. Wilson, formerly of the Ordnance Survey of Sinai. After this consensus of opinion it might have been supposed that nothing more was to be said.

Mr. Baker Greene asserts that after the passage of the Red Sea the Israelites followed the old caravan road across the Tîh tableland to Akabah, which he identifies with Elim, where there were "twelve wells and threescore and ten palm-trees" (Exod. xv, 27). As Elim merely means "a grove of palms," the name might doubtless have

been applied to Akabah, or to several other spots where groves of palms happened to grow; so that little value can be attached to this point of identification.

But taking the sacred narrative as it stands, let us see how it fits in with Mr. Greene's views. The Israelites are stated to have gone three days in the wilderness, and to have found no water (verse 22). Mr. Greene then draws the probable inference that on the fourth day they found water, and he identifies the spot where the water was found with Kala'at Nakhl, which is situated about half-way between Suez and Akabah on the caravan road, and is considered a fourth day's stage for caravans. Of this place Professor Palmer says:—"The country is nearly waterless, except a few springs, situated in the larger wâdies; but even here water can only be obtained by scraping small holes in the ground and baling it out with the hand. All that is obtained by the process is a yellowish solution, which baffles all attempts at filtering" ("Desert of the Exodus," p. 287). Such was the water with which, according to Mr. Baker Greene's views, the thousands of Israel, with their flocks and herds, were fain to slake their thirst after a march of three days under a broiling sun, and over one of the most desolate and forbidding tracts in that part of the world!

But, even supposing the water to have been at that period more plentiful, another question remains to be answered: Has Mr. Baker Greene ascertained the distance from Suez to Nakhl, which was reached, as he supposes, on the fourth day? If he will measure the distance on a good map he will find that it is about seventy English miles in a straight line, and in addition the march involves the ascent of the ridge of Jebel er Râhah of about 2,000 feet. To suppose that the Israelitish host, consisting of men, women, and children, together with their flocks and herds, could have marched seventy miles and crossed a ridge of 2,000 feet in three days is a demand on our credulity which he can scarcely hope to be granted. That it can be done on camels or horses is doubtless true; but to accomplish the journey on foot would tax the powers of a skilled pedestrian, and would be impossible for women and children.

Having disposed of this point, which lies at the threshold of Mr. Baker Greene's argument, I will take up another. It is stated that the Israelites on reaching Elim found twelve wells, and that they "encamped there by the waters," evidently referring to the waters of the wells; but surely, if Elim means Akabah, as Mr. Greene supposes, we might have expected to find some reference to the waters of the Red Sea (or Gulf of Akabah) as being in the vicinity of the camping ground.

But another objection to Mr. Greene's views meets us at the commencement of Exodus xvi, where it is stated that on leaving Elim the Israelites "took their journey and came unto the wilderness of Sin, which is between Elim and Sinai." In his statement Mr. Greene seems to make a confusion between the "wilderness of Sin" and the "wilderness of Zin," which latter lay along the Arabah, and probably included Elim and Akabah. The wilderness of Sin, according to the best

authorities, lay to the west of the Sinaitic peninsula. In any case the two names refer to two different districts. That spelt with *samech* being referred to in Exodus xvi and xvii; that spelt with *tsade* in Deuteronomy xxxii, 57; Numbers xiii, 21; xxvii, 14; and Joshua xv, 3, these being connected with Kadesh-Barnea.[1]

In reference to the statement of St. Paul, it is not difficult to understand why he places Mount Sinai in "Arabia." The term was doubtless used by the Apostle in a general sense to include the vast region of desert-land lying to the south and east of Judæa. Mr. Greene himself sees the difficulty of accounting for the fact that Mount Hor should be associated with the lesser event of the death of Aaron rather than with those stupendous manifestations of Divine power which were connected with the giving of the Law.

Again, if Elim be Akabah, how can this be reconciled with the statement of Numbers xxxiii, 10, that the Israelites "removed from Elim and encamped by the Red Sea," inasmuch as Akabah is actually by the Red Sea? Other difficulties might be cited, but the above are probably sufficient to show that Mr. Baker Greene's identification cannot be admitted.

Nor can I admit that Kadesh-Barnea is Petra. From personal experience of the difficulties of the mountain pass leading from the Arabah Valley to Petra, I may safely affirm that it would have been impracticable for the Children of Israel when on their way to the Promised Land.

EDWARD HULL.

Dublin, November 18, 1884.

II.

PROFESSOR HULL having been good enough to place at my disposal a proof-sheet of his objections to my view of the Exodus, I gladly avail myself of the opportunity of replying to them forthwith. Negatively it is a source of satisfaction to me that, with this exception, no one of the many members of the Palestine Exploration Fund has challenged the soundness of my arguments.

I must confess, however, that I find considerable difficulty in knowing how to deal with Professor Hull's criticisms. I have no right to complain that he has not read my book before entering the lists, but not having done so, I think I may justly complain that he should have assumed that I did not take the trouble of studying with ordinary attention the subject of which I treated. He tells me how to ascertain the distance from Suez to Nakhl; quotes Professor Palmer as to the waterless character of the country around the last-named place;[2] he attributes to me "a

[1] The Rev. Dr. Stubbs, of Trinity College, Dublin, has kindly verified the originals for me.

[2] Kalaat el Nakhl, with its fort and wells, has been frequently mentioned and described by travellers for centuries past. See Thevenot's account, quoted

confusion" between the wildernesses of Sin and Zin; he gravely informs the readers of the *Quarterly Statement* that the initial letters of these words are different, and with equal gravity adds in a footnote that my respected friend Dr. Stubbs has verified the fact by reference to those passages in the Hebrew version where the names occur. He somewhat authoritatively asserts that personal observation of the country is pre-eminently required for the settlement of the points in issue, and, with what most persons will be inclined to think singular infelicity, refers to the late Dr. Beke's pilgrimage in search of the true Mount Sinai. Finally, he refers to the authority of a number of persons as to the identity of Jebel Mûsa with Mount Sinai,[1] and airily adds that after this consensus of opinion it might have been supposed that nothing more remained to be said. To measure small things by great, I may remind the Professor that there was a still greater consensus of opinion against Galileo when he maintained that the earth moved, and against the first geologists who ventured to deny that the creation of the world was effected in six solar days.

And now to deal with Professor Hull's objections in detail:—

He says that little value can be attached to the identification of Elim with Akabah because of the presence of palm-trees at the last-named place. I would go farther, and say no value whatever could be attached to such a ground of identification taken *per se*. But if he will turn to my contribution to the last *Quarterly Statement* he will find that I wrote, "I cannot give here in detail the many reasons, Scriptural, philological, historical, and geographical, for my identification of the Elim of Exodus xv, 27, with the Elath of Deut. ii, 8, and 1 Kings ix, 26," and the modern

by Ritter, *Erdkunde*, 14. He crossed the desert from Suez to Akabah in 1658, the journey occupying six days, of which sixty-seven hours were spent in travelling, which closely corresponds with the estimated time in the "Tabula Peutingeriana" (sixty-eight hours). See also Dr. Shaw, "Travels in Barbary and the Levant," 1721, p. 477; Dr. Pococke, Bishop of Meath, "Description of the East," 1743, i, 265. Nakhl is the half-way house on what Captain Burton describes as the oldest route in the world, and it has never been surveyed.

[1] It is not of much consequence, but as a matter of fact Burckhardt identified Jebel Serbal, a mountain thirty miles to the westward of Jebel Mûsa, with Sinai, an opinion shared by Lepsius and others. Captain Burton thus pithily sums up the respective claims of the various mountains in the peninsula to be "the true Sinai:"—"It is evident that Jebel Serbal dates only from the early days of Coptic Christianity; that Jebel Mûsa, its Greek rival, rose after the visions of Helena in the fourth century; whilst the building of the convent by Justinian belongs to A.D. 527. Ras Sufsaveh, its rival to the north, is an affair of yesterday, and may be called the invention of Robinson; and Jebel Katerina, to the south, is the property of Rüppell." ("Midian Revisited," i, 237.) I have the best reason for knowing that Professor Palmer had accepted my views of the Route of the Exodus before he left England in 1882, and that he would probably have taken the first opportunity of avowing his change of opinion had he returned.

Akabah. I cannot be expected to summarise the contents of an octavo volume of nearly five hundred pages.

Professor Hull urges the impossibility of the thousands of Israel, with their flocks and herds, finding a supply of water at Nakhl, and the improbability of their making the journey from Suez to that place in three or four days. Unfortunately for his inference he proves too much. There is no place in the desert of the Tîh, where they are said to have wandered for forty years, where water could have been obtained for such a multitude. It is generally supposed that the released captives, including old men, women, and children, numbered between two and three millions. If such was the case, and they had formed a column ten abreast, allowing only a yard depth for each rank, the caravan, exclusive of flocks and herds, would have reached from Suez to Akabah. I believe that the released captives were not in such excessive numbers as to preclude the possibility of their doing what is annually done by the Egyptian Haj, namely, crossing the desert to Akabah in about a week's time. Professor Hull says that from his personal experience of the difficulties of the mountain pass leading from the Arabah to Petra, he can safely affirm it would have been impracticable for the Children of Israel on their way to the Promised Land. This objection, like the preceding one, rests, I presume, on their supposed numbers. But let us glance at certain admitted historical facts. At some period of their journeyings the Israelites were beyond all question in the middle portion of the Wâdy Arabah. They desired to pass through Edom, which throughout is a very mountainous region, in order to reach Moab and the Trans-Jordanic country to the north. The Edomites refused permission, and "came out against Israel with much people and a strong hand" (Numb. xx, 20, 21), "wherefore Israel turned away from him." But where did Israel turn? It is conceded on all hands that on quitting Mount Hor, the Israelites descended the Arabah "by the way of the Red Sea," by which is here meant beyond all dispute the Gulf of Akabah (Deut. ii), and, passing Ezion Gaber and Elath, "compassed Mount Seir," that is, Edom, and following the east "coast" of that country pursued a northerly direction to Moab. About this portion of the route followed by the Israelites there never has been any question. But the reason they took this circuitous course was because they were not enabled to pass through Edom, and this inability depended not upon the physical characteristics of the country, but on the hostile attitude of the Edomites. But the difficulties of this particular pass by which Professor Hull proceeded from the Arabah to Petra would have been equalled if not exceeded by those of the other "wâdies" debouching from the Idumean range into the Arabah. So that we must either reject as unhistorical the statement that the Israelites would have crossed Edom from the Arabah if they had been permitted to do so, or admit that those physical difficulties on which Professor Hull lays such stress would not have been insuperable.

Professor Hull says it is not difficult to explain St. Paul's placing

Mount Sinai in Arabia. "The term was doubtless used by the Apostle in a general sense to include the vast region of desert land lying to the south and east of Judæa." But this is begging the whole question. There is not a tittle of evidence that St. Paul ever thought or heard of the so-called Sinaitic peninsula. I affirm without fear of contradiction that no human being ever dreamt of extending Arabia west of the Arabah until Ptolemy, at the close of the second century, introduced what he called Arabia Petræa, an innovation which was never sanctioned or recognised by the Arabian geographers. It is not unreasonable to conclude that St. Paul, being a highly educated man, knew what he was writing about, and when he referred to Arabia meant the country which was so designated by his contemporaries. For the explanation of the curious fact that the association of Mount Hor with Aaron's death should have apparently survived those arising from the tradition of the law I must refer to the "Hebrew Migration." It should not be forgotten that, wherever situated, Mount Sinai fell into oblivion among the Jews. No pilgrimages were made to it, and its exact site was certainly unknown to Josephus, or he would have fixed its locality by its proximity to some well-known place.

The "confusion" which Professor Hull attributes to me respecting the wilderness of Sin and Zin supplies an opportunity, of which I may be permitted to avail myself, not only of satisfying the Professor that he has done me an injustice, but of bringing under the notice of the readers of the *Quarterly Statement* some interesting facts respecting Sin and Zin which will, I believe, lead them to share my opinion that they were identical.

The wilderness of Sin was between Elim and Sinai (Exod. xvi, 1), and in Exodus xvii we have mention made of two very remarkable incidents which must have happened in, or in the immediate neighbourhood of, that wilderness, namely, the smiting of the rock with the production of water, and the battle with the Amalekites. Let us briefly consider all that is told us respecting these two incidents.

According to the account in Exodus xvii, the Israelites murmured through want of water, and obtained the miraculous supply from the rock in Horeb, the place bearing the name "Massah and Meribah, because of the chiding of the children of Israel, and because they tempted the Lord." We have, however, another account of this miracle in Numbers xx. It is there stated that "then came the children of Israel, even the whole congregation, into the desert of Zin in the first month, and the people abode in Kadesh, and Miriam died there." Whilst in this place "there was no water for the congregation." The people rebelled, and Moses, by command of the Lord, smote the rock, and the water came forth abundantly. "This is the water of Meribah, because the children of Israel strove with the Lord, and He was sanctified in them."

Now no one will seriously contend that there were two distinct miracles, performed under precisely similar circumstances, at an interval of nearly forty years, in places widely apart, and that the water produced bore in both cases the name "Meribah." But all doubt on the matter is removed

by referring to the language which was addressed by the discontented Israelites to their leaders. They demanded why they had been brought into the wilderness with their cattle to die, and asked "wherefore have ye made us to come out of Egypt to bring us into this evil place? it is no place of seed, or of figs, or of vines, or of pomegranates, neither is there any water to drink." This language was appropriate if used by people who had only recently quitted Egypt, and who "in the first month" (Numb. xx, 1) after their departure had arrived in a region where they were forced to submit to great privations; but it is hopelessly unintelligible as coming from people who had been thirty-nine years straying about in the wilderness, the generation which had quitted Egypt having by that time almost entirely died out.

The second incident recorded in Exodus xvii is the battle with the Amalekites, and if the accepted view that the wilderness of Sin was in the south-west region of the Sinaitic peninsula, this must have been fought close to the Gulf of Suez. The negative and the positive evidence against such an assumption are, however, overwhelming. The inscriptions on the steles at Sarbut el Khadem, which is close to the route which must have been followed by the Israelites if they entered the peninsula, prove that the mines in that neighbourhood were worked by the Egyptians for centuries before the Exodus took place, and for long afterwards.[1] If, however, this particular region was occupied by Egyptians when Moses led the captives away, it is in the highest degree improbable that he would have entered a place occupied by his enemies, and still more so that the circumstance of having done so should have been unnoticed in the Biblical records. But by what possible train of reasoning can the presence there of the Amalekites be accounted for? Who were the Amalekites? Amalek was the grandson of Esau, and one of the Dukes of Edom (Gen. xxxvi, 12). The Edomites and the Amalekites were frequently treated as identical. It was the Amalekites who barred the progress of the Israelites when on their way to the Land of Promise (Numb. xiii, 29), within a few months after this supposed battle in sight of the Gulf of Suez. But we have a specific account of a battle between the Israelities and the Amalekites, in which, however, the latter were victorious, and the scene of the engagement was in the wilderness of Zin near Kadesh (Numb. xiv), the same incident being referred to in Deuteronomy i, and it was this reverse which led to the return of the Israelites down the Arabah to Elath, and their subsequent journey by the east of Edom to Moab.

It is therefore simply inconceivable that the Amalekites, who beyond all question were Edomites, should have been found at the time of the Exodus in Egyptian territory, and then actually occupied by the Egyptians, and that they should, without any imaginable reason, have given battle there to the Israelites. In the battle recorded in Exodus xvii the Israelites were victorious, while in that mentioned in Numbers xiv and Deut. i they were vanquished. There can be no reason to doubt that these

[1] "Heb. Mig.," p. 174.

engagements were consequent on the efforts made by the Israelites to pass through Edom, and were fought in the same region

It is worth while to ascertain what opinion a Jew living at the commencement of the Christian era entertained respecting the locality where the first battle with the Amalekites was fought. Josephus, in his pharaphrase of this portion of the Biblical narrative, states that a coalition was formed against the Hebrews, and that "those who induced the rest to do so were such as inhabited Gobolitis and Petra: they were called Amalekites" ("Ant.," iii, 2). It is perfectly clear, therefore, that, in the opinion of the great Jewish historian, this battle was fought in Edom, and that the Sinaitic peninsula was wholly absent from his mind. He certainly had no opportunity of consulting those great modern authorities which place Mount Sinai between the Gulfs of Suez and Akabah.

Whilst the Israelites were still between Elim and Sinai they met with the Kenites and concluded a league with them (Exod. xviii). But the same insuperable objection to the transportation of the Amalekites to the Sinaitic peninsula, applies to placing the Kenites in the same region. This latter people, though distinct from the Amalekites, occupied with them the country on the east of the Arabah. They are positively referred to by Balaam (Numb. xxiv, 7); they aided Judah in the invasion of Southern Palestine (Judg. i, 16); and on the occasion of Saul's campaign against the Amalekites (1 Sam. xv), which beyond all question was fought in the region to the south of the Dead Sea, the Kenites at the request of the king separated themselves from the Amalekites. What imaginable reason could Jethro, who was the Sheikh of the tribe, have had for taking his people for a flying visit to the so-called Sinaitic mountains?

It will doubtless be urged that my identification of the wilderness of Sin with that of Zin is irreconcilable with the "Itinerary" (Numb. xxxiii), in which they are apparently distinguished from each other, and placed very far apart. My reply is, that the result of a critical collation of the Itinerary with the narrative of the principal events which marked the journeying of the Israelites from Egypt to the Promised Land shows that the former is a production of a more recent date, and was probably compiled either during or immediately subsequent to the Babylonian captivity. It is observable that the Itinerary tells us no new facts, though it furnishes names of places of which there is no mention elsewhere. It would be impossible for me to give here an exhaustive analysis in support of the inference of the comparatively late date of this composition, but one or two points may be noticed pertinent to the present matter. In the Itinerary the Israelites are said to have proceeded from Kibroth-hattaavah (which we know was in the wilderness of Sin, Exod. xvi) to Hazeroth, and thence to a number of places of which we have no mention elsewhere. But we learn from another source that on removing from Hazeroth the Israelites "pitched in the wilderness of Paran" (Numb. xii, 16), which is identified with that of Zin, from which the spies were sent forth. It is clear, therefore, that if according to the Itinerary the Israelites proceeded from Kibroth-hattaavah, in the wilderness of Sin, to Hazeroth which was

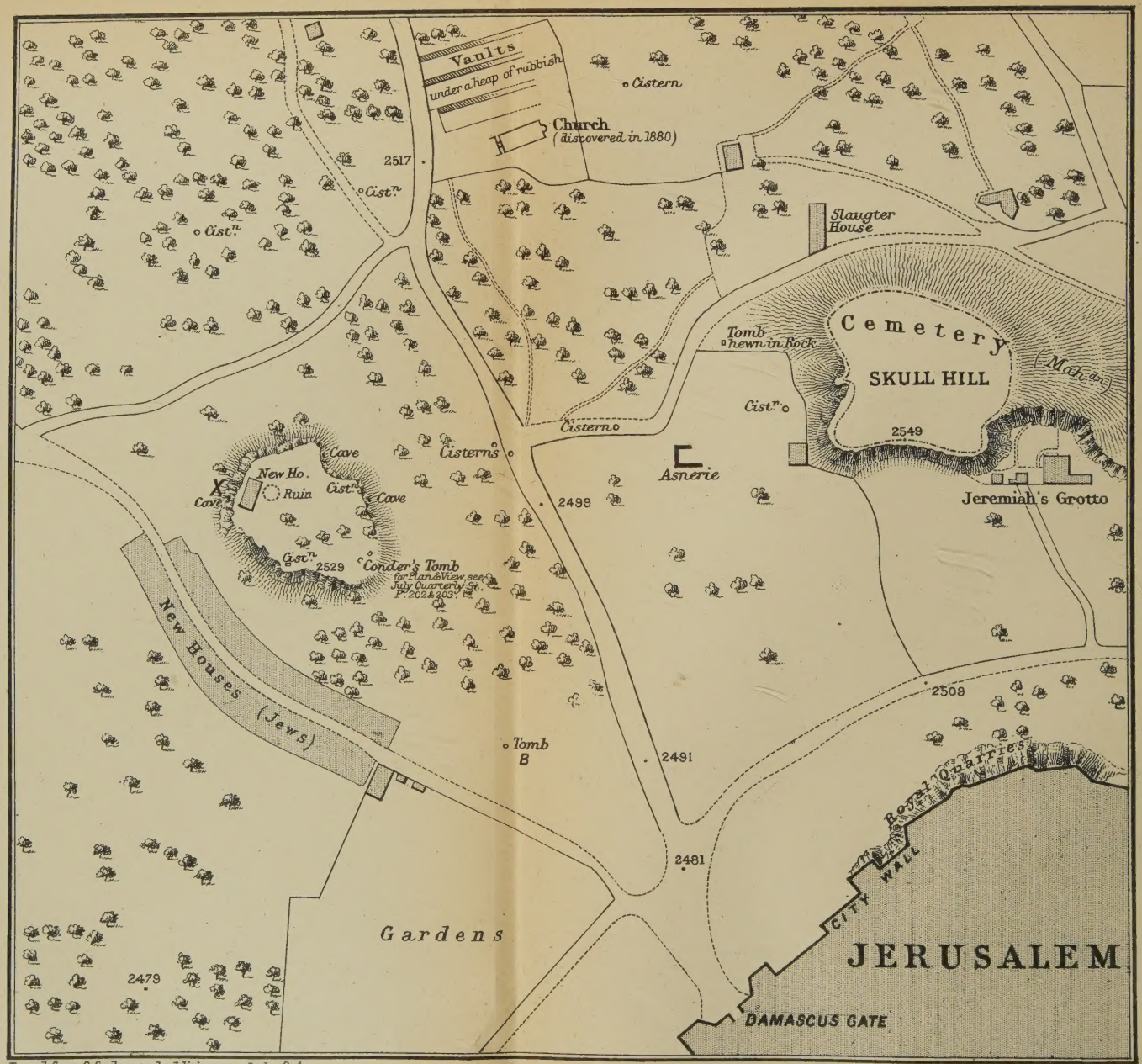
the next station to the wilderness of Paran, or of Zin, the deserts of Sin and Zin must have been contiguous, or were identical if the journey from Hazeroth to Zin marks the return to Elath at the head of the Gulf of Akabah. As, however, the spies "searched the land from the wilderness of Zin unto Rehob," the wilderness of Sin, which was close by, if not identical with, that of Zin, and which lay between Elim and Sinai, could not have been in the Sinaitic peninsula. I may add that one of the curious results of taking the statements in the Itinerary in their received sense is that, as the Israelites did not reach the wilderness of Zin until immediately before the death of Aaron, the spies who set out from thence could not have undertaken their mission until nearly forty years after the departure from Egypt. But the forty years' delay in the wilderness was declared to have been the punishment for the disobedience of the Israelites on the return of the spies (Numb. xiv).

There are many who regard the Pentateuch as a continuous narrative from the beginning of Genesis to the end of Deuteronomy, and who make it an article of faith to ascribe the authorship to Moses. I cannot understand why they do so, or why they consider it as incompatible with inspiration to admit that it may be the work of many hands. The Gospels do not speak with diminished authority because they are the productions of four different evangelists. On the contrary, the confirmation they respectively afford of the facts they record furnishes more conclusive proof of the sacred narrative than if the story had been told by only a single witness. And so it is with the various distinct records which have been welded together in the Pentateuch. By their substantial agreement in the main, no less than by their differences in details, in forms of expression, and in dialect, they give us, by what are termed "undesigned coincidences," the most absolute proof of the historical accuracy of this great movement of liberated Hebrews from Egypt to Palestine which was destined to exercise so great an influence on the human race. Carefully preserved by the different nations of which Trans-Jordanic and Cis-Jordanic Israel and Judah were composed, they were subsequently collected and presented in the form in which we now see them. The Mount of God was to some known as Horeb, to others as Sinai, and probably to all as the *Har-ha-har*, the Mount of Mounts. The Elim of the records of one section is the Elath of another, as the Hazarim of the one is the Hazeroth of the other, and in like manner the wilderness which by some was kept in their memories as that of Sin, was referred to by others as that of Zin.[1] These are, however, differences which, if viewed in a proper light, only serve the more conclusively to convince us of the authenticity and the antiquity of these precious records.

J. Baker Greene.

[1] We have an illustration of the difference in the use of sibillants by the Cis-Jordanic and Trans-Jordanic sections of Israel in Judges xii, 6. The Sibboleth of the former was the Shibboleth of the latter.

PLAN SHEWING POSITION OF THE TWO MOUNDS N. OF DAMASCUS GATE.



Traced from O.S. plan, and additions made by G.A.

E. Weller, lith.

Scale

100 0 100 200 300 400 500 600 700 800 feet